Canadian Home Economics Journal

Fall 1993. Volume 43, No. 4

Revue canadienne d'économie familiale

Automne 1993. Volume 43, nº 4

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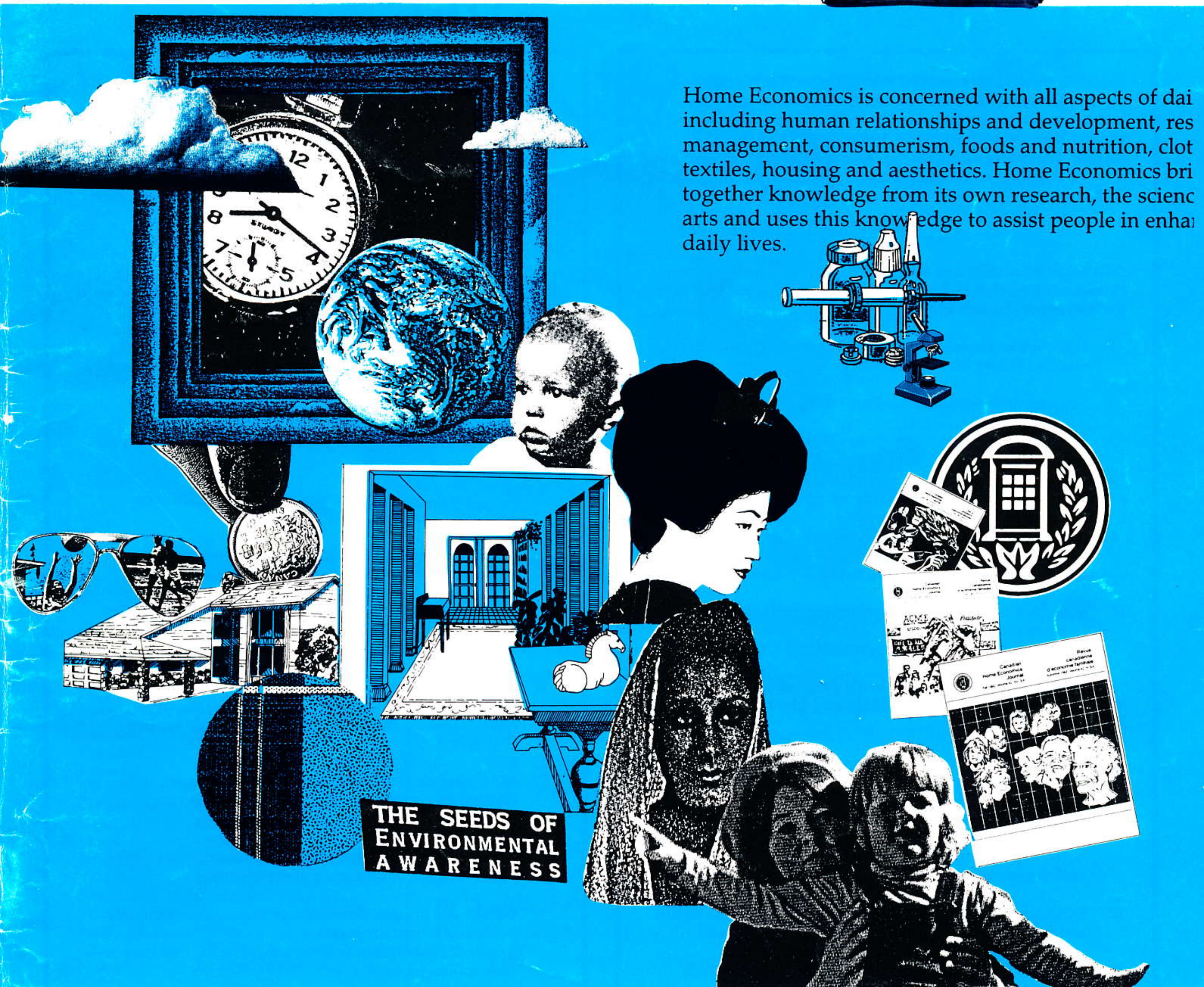

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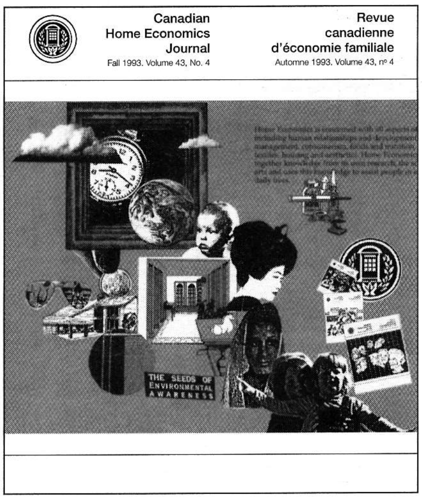

Cover design: Dennis Goshinmon

Printed by M.O.M. Printing Ltd., Ottawa

ARTICLES
LES ARTICLES

Transforming Women's Roles as Mediators of Family Nutrition: Education, Policy, and Research Options
Eloise Comeau Murray and Nyambura Susan Maina 139

Canada's Fashion Industry — Can it be Environmentally Responsible?
Kim Wrobel and Linda Capjack 144

L'industrie de la mode du Canada — Comment peut-elle être respectueuse de l'environnement?
Kim Wrobel and Linda Capjack 147

Home Economics Education in Africa: Reflections and Prospects
Judith Waudo 150

Home Economics — From Home to College
Mary Pelton 153

RESEARCH SECTION
SECTION DES RECHERCHES

Sensory Objective Evaluation of Fat Reduced Vanilla Cookies Containing Polydextrose
Patricia Hodgson, Darlene Spelten, Marie Slusar, Eileen LeBlanc, Neeshila Jamal, and Michele Wilson 158

DEPARTMENTS
LES RUBRIQUES

Abstracts of Current Literature 166
New Developments 171
Book Reviews 175
1993 Award Winners 183
1993 Award Announcements 184
Call for Papers, 1993-94 143
Demande d'articles 1993-94 143
Home Economists Speak Out — Shirley Rebus 177
Index to Volume 43 179

(Date of issue—October, 1993)

Canadian Publications Mail
Sales Product Agreement
No. 177849

Published quarterly/Publication trimestrielle

Canadian Home Economics Association
901-151 Slater Street, Ottawa, K1P 5H3, Canada
Tel: (613) 238-8817/238-8819

CHEJ EDITORIAL OFFICE*

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*All items for the Winter 1994 issue should be directed to the new CHEJ Editorial Committee.
The Fall 1993 issue of the CHEJournal was edited by the Lethbridge, AB committee.

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Supported in part by grants from The Canadian Home Economics Foundation and the Canadian Association of Research in Home Economics.

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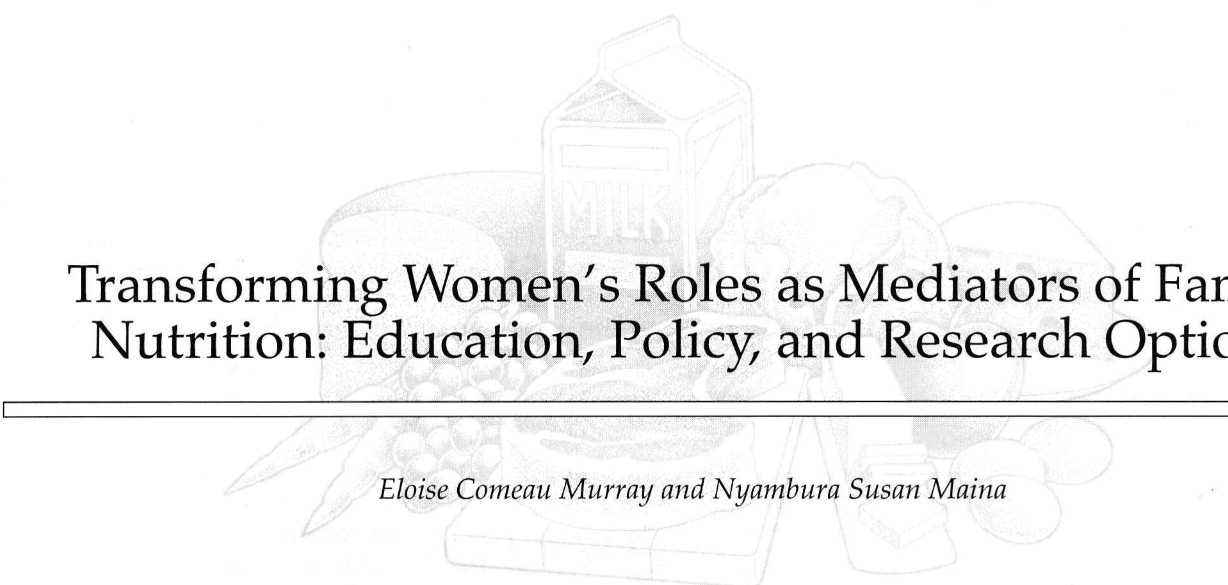

Transforming Women's Roles as Mediators of Family Nutrition: Education, Policy, and Research Options

Eloise Comeau Murray and Nyambura Susan Maina

Abstract

In the first article on family nutrition the focus was the impact of the social and economic changes in Kenya on women's roles in providing food. This second article approaches the subject without reference to a specific country. Recognizing that nutrition is an outcome of social relationships, education, policy, and research, alternatives are suggested to transform women's roles in family nutrition.

Résumé

Le premier article sur la nutrition familiale mettait l'accent sur les répercussions des changements sociaux et économiques sur les rôles des femmes au Kenya sur le plan alimentaire. Ce deuxième article traite du sujet sans faire mention d'un pays en particulier. Compte tenu que la nutrition procède des relations sociales, de l'éducation, du politique et de la recherche, on propose divers moyens de transformer les rôles que jouent les femmes sur le plan de la nutrition familiale.

In many developing countries economic and social conditions are being radically altered by a complex set of interacting factors. Among the most salient of these influences are the need for governments to address the agendas of structural programs, globalization, and the unique changes within specific nations. While national governments have been participants in determining the nature of the stringency measures designed to meet long-term debt, few could have foreseen the impact at all levels of society, especially on households and women (Joekes, 1987; Gladwin, 1991). Numbing poverty has become the norm for increasing numbers of people. Globalization as a contemporary phenomenon, whether in business, media, or its many other aspects, impacts everyone in the range of products available, roles portrayed, information accessible, costs of goods and services, and expectations about one's own life. Interacting with these macro-level forces, changes in national political structures and demographic conditions present environments in which there are significant uncertainties, as well as exciting options, for the transformation of people's lives.

Against this backdrop of unprecedented change women carry out the tasks of daily life in what Moser (1989) refers to as their "triple role" of economic responsibility, community maintenance, and household or reproductive tasks. Among the reproductive tasks are the provision and preparation of household meals (Maina & Murray, 1993). While many share these responsibilities, each woman faces the persistence of the tasks. What one does and how it is done varies as a function of personal attributes, household, and work environments, as well as the socio-cultural situation (See Table 1).

The diversity of women's needs and the means they use to meet them must be recognized when attempting to address specific problems such as improving nutrition. While it is not possible to individualize program interventions, it is erroneous to assume that women in any community are members of a homogenous group.

Dr. Murray is Professor in the Departments of Rural Economy and Women's Studies at the University of Alberta. Her research interests include women and development, reconceptualization of home economics, and change in rural social systems. **Ms. Maina** is a graduate student in Educational Foundations at the University of Alberta. Her graduate program is funded by a CIDA project linking the University of Alberta and Kenyatta University.

Options for Change

Change in a private domain of human behavior such as family nutrition will require long term strategies. Nutrition is intimately linked with other health issues and nutrition-related choices are made in an environment of competing demands for resources. Initiatives to transform family nutrition patterns may originate within a particular country or may emanate from external agencies; however, there are four basic approaches to address the issues. These approaches are education, policy, research, and action programs. The suggestions that are given below are interconnected, although emphasis is given to a specific option in only one area.

Regardless of the particular option(s) selected to make change, Moser (1989) reminds us that not all approaches to women in developing countries are equally promising. She outlines five alternative perspectives ranging from welfare approaches which foster passive and dependent behavior to those which seek to empower women to identify and

Table 1. Selected influences on women's daily lives

Personal Attributes	
*personal identity	*education
*income/other material resources	*past/current health status
*age	*number and ages of children
*age at first child bearing	*beliefs, attitudes, and values
*marital status	*ethnic group and social class
*skill including communication	*experience
Household Environment	
*presence of male partner	*food habits
*support of partner/others	*availability of food/fuel
*support provided by others	*type of marriage
*number of people	*household responsibilities
*decision making process used	*type of home
*access to health services	*access to water/sanitation
*amount of household income	*distribution of income
*household technology	*leisure
*relative power in household	
Work Environment	
*nature of work	*workload
*occupational hazards	*position in work structure
*participation in decisions	*social services availability
*nature of responsibilities	*availability of unions
*sexual harassment	*level of income
*length of work day	*advancement opportunities
*work conditions	*degree of work security
Sociocultural Environment	
*cultural patterns/taboos	*gender roles
*position of women	*traditional/legislated laws
*political structure	*government programs/policies
*technology availability	*religion/belief systems
*farming systems/food security	*economic conditions
*energy sources/availability	*population structure
*conception of time	*nature and role of art
*perceptions of social change	*relationship to nature
*traditional/scientific health care systems available	

Source: Kerenge & Murray (In process)

address their own situations. What is important to effect positive change is a "fit" among the strategy, the needs of the women to be served and the situation in which the program is taking place. Perhaps most important, the women themselves have to be a part of defining both the approach and the timetable for change.

Initiatives will be more viable if rooted in women's continuing concern for their family (Blair, 1980). For example, women can be co-sponsors to make local weaning foods. Post-harvest technologies which enhance food storage help to stretch resources that are available. They can contribute to income generation as a complement to improving nutrition, and not be in competition with it. The goal would be to sell only surplus food without diminishing the supply available to the household.

Education

Whether the learner is a child or an adult, the program carried out in school or in a non-formal context, education is a long term strategy. As an ideal, it involves the acquisition of information, attitudes, and skills so learners can make informed judgments within their own environment. And yet many education systems teach more for rote learning than critical thinking, inculcate attitudes that diminish participants' view of themselves and are unrelated to the realities of the context in which they exist (Murray, 1990).

Four educational alternatives to enhance household nutrition are given below.

I. Improve family nutrition through strengthening females' self-esteem by recognizing the value of their contributions to everyday life. Perhaps one of the biggest failures of education is perpetuating gender stereotypes that result in low self-esteem of women and girls. The consequences of this low self-esteem for an adult woman and her family are well documented (Young et al., 1984). When women say that they can eat whatever is left from the meal of the partner and children, this reflects lack of valuing of self and does not account for the nutritional needs to carry on their triple role. It is also one way that the attitudes about the inferiority of females are passed on to both male and female children.

What is to be counted as work (Waring, 1988) and how it is valued can be a public education strategy, as well as one in school programs. The role of media in portraying positively members of both sexes, not just men, can contribute to attitudinal change. Timyan et al., (1993) see education and leadership training for women to enhance their sense of self-worth as central to improving health-care decision-making in general, and in particular, to diminishing violence against them (p. 231).

Addressing self-esteem can be an important goal of home economics programs in extension and in schools. Developing self-esteem will involve learning experiences which deal with the topic both directly and indirectly. Since the actual processes and expectations for women in the provision and use of food vary so greatly by cultural group, programs could use a learner-conducted study of the local household food practises as a means to discover the significance of women's roles.

II. Target nutrition education to the whole household and beyond. If the target for nutrition groups intentionally included men, grandmothers, household workers and children, then there can be shared responsibility for, or at the very least, shared knowledge about the choices which were made. When women alone are the target, there is less likelihood there will be a transformation in the family diet as there can be no expectation of support in the decisions or in the provision of resources. Indeed, the most significant consequence may be an increase in the burden of guilt the women bear. They may know what should be done, but cannot follow the advice because it does not fit with the lived realities of providing food on a daily basis.

One unique target group for nutrition education that falls outside the parameters of the household is agricultural scientists (Axinn, 1993). In many parts of the world most of these scientists are male. They often do not know the nutritional value of the crops for which they are experts. However, they may be in positions to influence agricultural policy about which crops will be grown and with what level of government support. If the basis for crop

selection included the need of local people for selected nutrients, then perhaps the policy choices would be different.

Other professionals, such as health workers and community development workers, are frequently targeted as accomplices in nutrition education strategies. The challenge to educators is to see beyond the usual recipient or collaborator in nutrition education and the confines of traditional approaches in order to improve success.

III. Link nutrition education with consumer education. When nutrition and consumer education are linked there can be improved nutritional status even without additional resources. The focus would be on value for money, food choices, and attitudes. Food choices are affected by such factors as food availability and purchasing power, as well as by preferences, cultural practices, and social forces. Therefore, there can be no generic approach to addressing family nutrition. Nutritionists and educators will have to understand the **context** of the nutritional problems to design effective programs (Prehm, 1991). One important dimension of the context is the limit of women's time and energy. Unless this is acknowledged, programs are likely to create new and unrealistic expectations about women's involvement, rather than presenting alternatives which do not increase demands.

The connection between nutrition and consumer education is possibly most crucial for those with the least income. When poverty is linked with large families, limited food availability, and lack of education; and when currency is being devalued and food prices rise on nearly a weekly basis, there is a restricted range of food choices. Household food decisions have to made judiciously without undue social pressure of deceptive advertising. And yet, the poor as a group are least likely to be understood by those charged with developing and delivering the programs from which they might benefit. This lack of knowledge about this client group can be exaggerated by a focus on protein as the dominant cause of malnutrition, rather than looking at the whole diet and all food sources. Under such circumstances prescriptions for family meals are developed that the poor can never meet.

IV. Make in-service education of nutrition education personnel an integral part of developing programs to transform household nutrition practices. Many of the persons charged with developing and delivering nutrition education were not trained as educators, particularly in the use of more contemporary problem solving and participatory approaches. For many, there is a likelihood that their own education in nutrition was based on food practices and commodities which are not local. As McFadden (1991) has noted about home economics in Africa:

> The class character of home economics in Africa is very intricately connected with the people who first introduced it to the continent in the earlier part of the 20th century. These were mainly the wives of colonial officers. Later various missionary societies adopted the subject and wove it into their educational curricula, paying special attention to the education of middle class female pupils.
>
> The transformation of the female native into a "civilized" and loyal representative of colonial interests, in particular her construction as an extension of the "civilized" male native, underpinned the formulation, adaptation and application of home economics on this continent. Running through the entire logic of the subject was the inculcation of British Victorian morals and social behaviour patterns, and the insistence that western culture was/is best. The result was an imitation of western eating habits, food, manner of dress and social interaction. Indigenous foods, their preparation and presentation, and the nutritional value of what was not included in the British Food Guide, was deemed substandard and reflective of "the other". (p. 3-4).

Many nutritionists' training was based on a technical/scientific instructional approach which does not easily lend itself to helping people change their behavior. Unless those who are educators can learn and practise new teaching strategies, they will not have confidence in making changes in their teaching/learning methods, even if they are aware that it would be advisable to do so. Nutrition education can take a variety of forms including use of mass media, face-to-face encounters, drama, and demonstrations in both school and extension programs. By remembering that people eat foods, not nutrients, and that these foods are very often local foods prepared in traditional ways, a wholistic practical problem approach can be developed. Attempting to understand the complex meanings of food for specific groups of people is an important first step in program development.

Policy

Public policy reflects a particular nation or group's view of what should be done to address a specific problem. In theory, the process of policy formulation involves the use of a combination of empirical data from a variety of disciplines, with normative or value considerations that reflect both the goal and the process for reaching that goal. In practise, there are many stakeholders, including the policy makers themselves, who can subvert the process. The adequacy of a particular policy can be assessed in many ways, but four criteria are usually considered. These criteria are:

(1) technical — will the choices made address the problem?

(2) economic — are the options affordable?

(3) legal — do the choices conform to the legal code?

(4) social — do the choices fit with the existing social institutions? (Dunn, 1981, p. 226)

Given below are three broad areas for policy development which can support family nutrition.

I. Continue the effort to collect data disaggregated by sex, particularly in the areas of health, contribution to household survival, and food chain activities. One of the needs identified through the UN Decade for Women was for data that are disaggregated by sex to determine women's contribution to the development process. The absence of recent reliable data as a basis for policy formulation and program development results in establishing priorities that overlook the strategic or practical interests of women. Particularly in those nations seeking self-sufficiency and sustainable growth, there is a need for knowledge of the effective strategies used in daily life.

II. Make nutritional outcomes, including consideration of economic and social factors, as well as the use and value of indigenous crops, central to any food policy option considered by a nation. Growing more food crops is of no great value to the poor and hungry if they have no ability to purchase them. Poverty is the single great-

est impediment to nutrition. Food crops for export have a negative impact on local nutritional status, even if incomes rise marginally. Although local nutrition concerns will have to compete in the policy formulation process with such macro-economic issues as the availability of foreign capital, they have to be a part of the agenda.

III. Make nutrition education an integral part of community-based primary health care considerations. Often nutritional status is taken as an indicator of disease or deprivation. It is one of the keys to good health, but it is not the only one. If community-based primary health care initiatives included greater focus on the preventive dimensions of adequate nutrition, this would fit with the basic philosophy of primary health care. While nutrition is often a component of healthy children campaigns, it should be extended to include all family members regardless of sex or age. The expectation is that programs would be based on local foods and practices, and would attempt to overcome the dimensions of these practices that place selected household members at risk.

Professional associations and individual home economists can play two important roles in policy formulation about nutrition. The first is as purveyors of knowledge about the realities of households and communities, as well as about uses and values of local foods. Specifically, there is a need for data about the nutritional status of various groups within a country. This includes effective presentation of information in both elected representatives and public administration personnel, as well as to media for public education. Second, home economists, individually and collectively, can seek to have nutrition focussed policies developed in their organizations, and their nations. They can become involved in the public policy formulation process.

Research Agenda

Knowledge is the basis of education and policy initiatives. There have been great and important strides in nutrition science particularly in relation to specific diseases. This research can be complemented by equally rigorous work on the social and cultural dimensions of food practices. It is this knowledge that is needed when the goal is the improvement of household nutrition.

If effective interdisciplinary work could be undertaken, a diversity of perspectives would provide a more wholistic perspective which can be a rich resource for policy-makers and educators. And yet, the constraints on interdisciplinary research are so great that this approach seldom occurs. While researchers from many disciplines may study the same problem, their efforts are more often parallel than interactive.

Three areas of research needs are identified.

I. Using both quantitative and qualitative methodologies, conduct culturally specific research on household food and nutrition decision making. Although there have been concerted efforts to understand how resources are allocated within households, there has been insufficient attention to food or its nutrition implications (IFPRI, 1992). This applied nutrition research needs to address the wide variations in households. It will require careful definition of target populations to assess the effects of demographic, cultural, and social diversity. While survey research will provide much needed answers about households in a particular area, more focussed studies will help to determine the qualitative dimensions of the problem. One area for investigation is the change in diet over the years. By including older women in studies, which is seldom done particularly in developing countries, it may be possible to recover lost practices that will improve household nutrition.

II. Expand the efforts to document indigenous knowledge about traditional food crops and their uses. There are many projects and programs currently focussing on indigenous knowledge in the area of agriculture. For the home economist, the first challenge will be to link with existing networks to find out what has been done so the findings can be applied.[1] However, many of these efforts stop at the kitchen door, at the document of the researcher, or at the gate of extension services. Stopping at the kitchen door means that though how and where a food crop grows may be known, its uses in the home are not necessarily explored. Is its nutritional value known? Who eats it? How much is usually eaten? Under what circumstances is the food consumed? Knowledge stops in a researcher's document when that person does not send the findings back to the area of the study to the persons who might use it. While the ethics of this extractive form of research have been extensively discussed and deplored, the practice still exists. Finally, as long as extension services continue to focus on cash crops, or those which are not indigenous to a particular area, or are grown only by large scale producers, indigenous knowledge will stop at the gate of ministries of agriculture. One of the consequences of this attention to large scale cash crops is that women's crops, those which sustain families on a daily basis, are seldom the focus of research and improvement.

III. Conduct research to determine males' knowledge and attitudes about nutrition. Men's nutritional health is often better than that of women in the same group. While there are biological factors which contribute to different nutritional needs, and we have examined some of the social and cultural reasons, the questions to be answered include the following: What is men's general level of knowledge about nutrition? What are their attitudes to changing their eating patterns to benefit other household members? Is it appropriate to assume that their nutritional status is merely reflective of the care they receive from their partners? If their level of knowledge about family nutritional needs was improved, would they be willing to make adjustments in their food practices and/or their contributions to the food budget? Knowledge about men's attitude and knowledge about nutrition, and about women and children's nutritional needs in particular, is basic to developing appropriate public education programs directed at improving nutrition.

In some respects there is a hierarchy of respectability of research in the area of human nutrition. This reflects a general attitude that controlled biological experiments are needed and more prestigious than are those which focus on human problems in an everyday life context. The purpose of this paper is to note that if household nutrition decisions are to be improved, there is a need for new research initiatives to provide reliable data for programs and policies. Home economists can play a key role in these initiatives which will be characterized by wholistic rather

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[1]Two excellent beginning places are the Centre for Indigenous Knowledge in Agriculture and Development at Iowa State University, Ames, Iowa; and the Centre for International Research and Advisory Networks, P.O. Box 90734, 2509 LS The Hague, The Netherlands. The latter centre has just begun publishing a newsletter called Indigenous Knowledge and Development Monitor.

than atomistic approaches to the social and cultural research questions.

Conclusion

As pointed out in the first paper (Maina & Murray, 1993), household decisions about what to eat and who eats how much take place in the context of other demands on women's time, energy, and other resources. Addressing these realities will require action programs which are locally-based and locally-controlled, including input from women themselves. However, there is still the view in many places and organizations that women are **recipients** of development programs rather than **participants** who contribute significantly to the process and the outcomes. In the case of nutrition, they are seen as end-of-the-line dispensers of food and good health, rather than as managers of household and community resources.

When there is widespread recognition of the roles women, and their children, play as providers of basic needs and the constraints that they face in doing so, then programs and projects will be more committed to the provision of essential services such as water and fuel as an integral part of planned activities. This vision of change is not rooted merely in education, policy, or research, but in the world itself and in changes in the conditions of life for many. Women cannot continue to make their contributions to human survival with such great costs to themselves. □

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The *Canadian Home Economics Journal* invites articles from home economists and others who share their interest in promoting the well-being of individuals and families. Papers related to social issues affecting the home economics profession and professional practice, or providing information about professional subject fields are of particular interest.

Submission deadlines:

Spring	December 15, 1993
Summer	March 1, 1994
Fall	June 15, 1994
Winter	September 15, 1994

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Dates limites d'envoi des manuscrits:

Printemps	15 décembre 1993
Été	1er mars1994
Hiver	15 septembre 1994
Automne	15 juin 1994

Canada's Fashion Industry — Can It Be Environmentally Responsible?

Kim Wrobel and Linda Capjack

Abstract

Canada's fashion industry, like other industries, must take responsibility for the safe use of the environment and its resources. Canadians must be educated about both sides of the environmental story in order to make wise choices. Canada's fur industry, for instance, must be promoted from an environmental stand point. Consumers are often given only one side of the story and are often too ready to accept unfounded, radical publicity from fur activists on the inhumane treatment of animals. Instead, consumers need to realize what a vital industry this is to our country, the native people, and to the environment. The Canadian textile and apparel industries could also take a proactive role in promoting the environmentally responsible actions taken to reduce pollution and decrease waste and bring consumers on side to make environmentally safe purchases.

Résumé

L'industrie de la mode au Canada, comme les autres industries, doit accepter la responsabilité d'utiliser sans risque l'environnement et ses ressources. Il faut sensibiliser les Canadiens aux deux versions de l'histoire en matière d'environnement afin qu'ils fassent des choix éclairés. Notamment, il faut promouvoir l'industrie canadienne de la fourrure du point de vue environnemental. Aux consommateurs, on ne présente souvent qu'un côté des choses, et souvent, ils sont par trop enclins à accepter la publicité non fondée et intransigeante d'activistes dans le secteur de la fourrure relativement au traitement inhumain des animaux. Les consommateurs doivent plutôt se rendre compte qu'il s'agit d'une industrie vitale pour notre pays, les peuples autochtones et l'environnement. Les industries canadiennes du textile et du vêtement devraient également jouer un rôle dynamique en faisant connaître les mesures prises, par respect pour l'environnement, en vue de réduire la pollution et de diminuer les rébuts, et inciter les consommateurs à acheter des écoproduits.

Fashion and the environment are generally thought of as antithetical. The word fashion itself has a connotation of wastefulness. Canada's fashion industry, like other industries, must take responsibility for the safe use of the environment and resources. This means that Canadians, in choosing fashion items, must make environmentally perceptive choices. By playing a proactive role in protecting the environment, Canada's fashion industry can make Canadians more aware of environmentally responsible fashion choices and influence consumers to make sound choices.

The Fur Industry — In Support of the Environment

For several years, the Canadian fur industry has been under scrutiny, even under attack, by animal rights activists, for killing wildlife and upsetting the balance of nature. The actions of these groups of people, often based on misinformation and misguided emotions, have been detrimental to the fur trade.

In fact, the fur trade may very well be the most environmentally friendly part of the fashion industry. The fur trade uses wildlife, but at the same time, takes responsibility for the protection of habitat and the maintenance of wildlife populations (Herscovici, 1989; Herscovici, 1990; Barker, 1990; Key Facts, 1989). "The fur trade supports the principles of conservation . . . (1) sustainable use of renewable

Kim Wrobel is a fourth year student in the Department of Human Ecology at the University of Alberta in Edmonton. This paper was written for a course on the Apparel Industry. It won second prize in a 1992 essay competition sponsored by the Fur Council of Canada on How Canada's Fashion Industry Can Be More Environmentally Responsible.

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resources; (2) protection of wildlife species; (3) protection of land and life-supporting eco-systems" [Fur Council of Canada (3)].

Trappers are the ultimate environmentalists; they are the first to notice pollution or hazardous industrial activity. They also prevent wildlife species from becoming overpopulated, a problem which can lead to disease, crop damage, attacks on livestock and poultry, and other destructions of habitat [Herscovici, 1989, Herscovici, 1990; Barber, 1990; Key Facts, 1989; Fur Council of Canada (3); Fur Council of Canada (4)].

Other contributions to the environmental soundness of trapping include licensing and regulating trapping seasons, the humane trapping of animals, and the fact that no species are endangered by the trade (Herscovici, 1989; Herscovici, 1990; Barber, 1990; The Fur Institute of Canada; Fur Council of Canada (1); Key Facts, 1989). Fur is a renewable natural product which does not pollute and is biodegradable (Fur Council of Canada (4); Herscovici, 1989). In addition, there is literally no waste in the fur industry. Animals trapped in the North by Native Canadians are used for food; even the carcasses of farmed fur animals are fully utilized (they provide fertilizers, quality oils, and lubricants) [Fur Council of Canada (2); Herscovici, 1989].

Many consumers do not realize how important and environmentally sound the fur industry is. What can be done? The fur industry, including fur retailers and designers, need to educate the public about the environmental benefits of their product. "A commercial enterprise implies a relationship between buyers and sellers . . . public information and education must be integral components of any responsible wildlife-use policy" (Herscovici, 1989, p. 49).

Natural Versus Synthetic — Win, Lose, or Draw

Another environmental controversy in the fashion industry is the use of natural fibres versus the use of synthetic fibres. Natural fibres, such as silk, wool, cotton, flax, and fur, are not scarce resources; they are renewable. They are also biodegradable. While some of the treatments applied in the production of natural fibre sources are detrimental to the environment, for example, the use of nitrogen fertilizers and pesticides, these processes can be controlled. Natural fibres and fabrics will always be ecologically more sound than synthetic fibres and fabrics [if they are processed wisely] (Herscovici, 1989). Increased use of natural fibres and decreased use of man-made fibres by textile and apparel manufacturers could have a positive influence on consumer's attitudes and actions.

Alternatively, synthetic fibres depend upon the use of petroleum-based non-renewable resources, and they are not biodegradable (Herscovici, 1989). However, synthetic fabrics have already carved a secure niche in society, and it is unlikely that their use will diminish in the near future; consumers like the availability of easy-care and speciality fabrics; some synthetic fibres play crucial roles in such things as protective apparel and industrial equipment. Clearly, the fashion industry cannot abandon the use of man-made fibres.

How Can Man-Made Fibres Become More Environmentally Friendly?

Where industry can make a difference concerning the environment in relation to synthetic fabrics is in production. Manufacturers can choose to purchase environmentally safer solvents, dyes, and chemicals. Unfortunately, while the use of natural dyes would seem to be the logical solution to producing colored fabrics, natural dyes are not suitable for application to synthetic fibres (Smith & Wagner, 1991). Harvesting natural dyes can present problems in that they are labor and energy intensive, as well as logistically difficult to produce (Smith & Wagner, 1991). Sources of natural dyes yield very small amounts of dye material; for example, only 2% of an indigo leaf is useful as dye; 98% of the leaf would become waste (Smith & Wagner, 1991). In the long term, this does not appear to be an environmentally sound option.

Another alternative is to recycle solvents and effluent utilized by the fashion industry. "Vapour adsorption using activated carbon produces usable solvent with a minimum of secondary pollution. In many cases the condensed water can be put to sewer without further treatment after separation" (Oakes, 1985, p. 6). "Carbon adsorption has proved to be one of the most viable and economically attractive methods available for the control of organic solvent emissions" (Oakes, 1985, p. 10). Other possibilities include the recycling of aqueous dyehouse effluent (Durig & Hausmann, 1979) and a new method of using reactive dyes in conjunction with a substrate such as jute fibres and sawdust to absorb various heavy metals from their aqueous solutions in treatment of effluent (Shukla & Sakhardande, 1991). Waste water can also be treated using certain organic polymers (Davis, 1991) or electrochemical treatments involving the formation of "an insoluble iron matrix which absorbs and co-precipitates heavy metals, dyes, pigments, and other contaminants from the water" (Kennedy, 1991, p. 27).

Certain types of fabrics can be made by more environmentally friendly techniques. For example, flame laminating techniques for making coated fabrics can be switched to powder laminating techniques, and some coatings can be produced without the use of solvents [which are often derived from non-renewable petroleum resources] (Woodruff, 1990). New types of incineration plants can also be produced; those which would reduce hydrocarbon emissions and power other parts of the plant at the same time would be the most ecologically sound (Woodruff, 1990).

Something Old, Something New?

Yet another way in which the fashion industry can be environmentally proactive is by the use of old or used garments in combination with new in the design and manufacture of garments. Used clothing can be purchased at a low cost and reshaped, reworked, or reaccessorized into new fashion. Consumers could be encouraged to buy these "new" fashions, as well as to "create" some of their own. The recycling of fibres from used garments and scraps from manufacturers into new clothing needs to be supported and encouraged.

Fashioning a New Image

In short, it is imperative that Canada's fashion industry take responsibility for the environment and encourage consumers to follow suit. Education about, and expansion of the fur industry is one crucial focus. The use of natural fibres, the recycling of solvents, and the treatment of waste are all critical to a cleaner environment. Finally, efficient reuse and recycling of clothing is a new avenue that must be explored. There are many opportunities for the fashion industry to be environmentally friendly and ecologically safe, and it needs to pro-

mote its responsible actions to consumers for mutual benefit. □

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ANNOUNCEMENT

To help celebrate the International Year of the Family, the Canadian Home Economics Journal invites submissions to be considered for a special theme section planned for 1994 issues of the Journal.

Theme	Issue	Deadline
Families: The Canadian Experience	Winter 1994	September 15, 1993
Families: Roles and Realities	Spring 1994	December 15, 1993
Families: Around the Globe	Summer 1994	March 1, 1994
Families: From Past to Future	Fall 1994	June 15, 1994

L'industrie de la mode du Canada — Comment peut-elle être respectueuse de l'environnement?

Kim Wrobel et Linda Capjack

Résumé

L'industrie de la mode au Canada, comme les autres industries, doit accepter la responsabilité d'utiliser sans risque l'environnement et ses ressources. Il faut sensibiliser les Canadiens aux deux versions de l'histoire en matière d'environnement afin qu'ils fassent des choix éclairés. Notamment, il faut promouvoir l'industrie canadienne de la fourrure du point de vue environnemental. Aux consommateurs, on ne présente souvent qu'un côté des choses, et souvent, ils sont par trop enclins à accepter la publicité non fondée et intransigeante d'activistes dans le secteur de la fourrure relativement au traitement inhumain des animaux. Les consommateurs doivent plutôt se rendre compte qu'il s'agit d'une industrie vitale pour notre pays, les peuples autochtones et l'environnement. Les industries canadiennes du textile et du vêtement devraient également jouer un rôle dynamique en faisant connaître les mesures prises, par respect pour l'environnement, en vue de réduire la pollution et de diminuer les rébuts, et inciter les consommateurs à acheter des écoproduits.

Abstract

Canada's fashion industry, like other industries, must take responsibility for the safe use of the environment and its resources. Canadians must be educated about both sides of the environmental story in order to make wise choices. Canada's fur industry, for instance, must be promoted from an environmental stand point. Consumers are often given only one side of the story and are often too ready to accept unfounded, radical publicity from fur activists on the inhumane treatment of animals. Instead, consumers need to realize what a vital industry this is to our country, the native people, and to the environment. The Canadian textile and apparel industries could also take a proactive role in promoting the environmentally responsible actions taken to reduce pollution and decrease waste and bring consumers on side to make environmentally safe purchases.

On croit généralement que la mode et l'environnement sont antithétiques. Le terme de mode a lui-même une connotation de gaspillage. L'industrie canadienne de la mode, comme les autres industries, doit prendre en charge l'utilisation sans risque de l'environnement et de ses ressources. Cela veut dire que les Canadiens, lorsqu'ils achètent des articles de mode, doivent faire des choix éclairés sur le plan environmental. En prenant les devants en vue de protéger l'environnement, l'industrie canadienne de le mode peut sensibiliser davantage les Canadiens aux choix respectueux de l'environnement et amener les consommateurs à faire des choix judicieux.

L'industrie de la fourrure — Soutien de l'environnement

Depuis plusieurs années, l'industrie canadienne de la fourrure est l'objet d'une surveillance rigoureuse et même d'attaques de la part des activistes pour la défense des animaux, parce qu'elle détruirait la faune et perturberait l'équilibre de la nature. Les gestes posés par ces groupes, souvent le fruit d'une mauvaise information et d'émotions mal canalisées, ont beaucoup nui au commerce des fourrures.

En fait, le commerce de la fourrure pourrait très bien représenter le secteur de l'industrie de la mode le plus soucieux de l'environnement. Le commerce de la fourrure utilise la

Kim Wrobel étudiante de quatrième année au Département d'écologie humaine à l'Université de l'Alberta, à Edmonton, a rédigé ce document dans le cadre d'un cours sur l'industrie du vêtement. Il lui a mérité, en 1992, le deuxième prix d'un concours de rédaction parrainé par le Conseil canadien de la fourrure et portant sur le sujet suivant : Comment l'industrie canadienne de la fourrure peut-elle devenir plus respectueuse de l'environnement?

Linda Capjack, MSc, PHEc, professeure adjointe et agent professionnelle administrative au Département d'écologie humaine, donne des cours en création d'habillement (notamment la conception assistée par ordinateur) et sur l'industrie du vêtement. Ses travaux de recherche se concentrent sur l'application de la conception assistée par ordinateur au processus de conception utilitaire et sur la transmission spectrale des rayons ultraviolets par les vêtements.

faune, mais, en même temps, assume la responsabilité de protéger l'habitat et de préserver la faune (Herscovici, 1989; Herscovici, 1990; Barker, 1990, *Key Facts*, 1989). Le commerce de la fourrure appuie les principes de la conservation : a) utilisation viable des ressources renouvelables; b) protection des espèces fauniques; c) protection du sol et des écosystèmes vitaux [Conseil canadien de la fourrure (3)].

Les trappeurs sont les meilleurs écologistes; ils sont les premiers à remarquer la pollution ou une activité industrielle dangereuse. Ils empêchent également que les espèces fauniques ne souffrent d'une surpopulation, un problème qui peut entraîner des maladies, des dégâts aux cultures, des attaques contre le vétail et la volaille et d'autres dommages à l'habitat [Herscovici, 1989, Herscovici, 1990; Barber, 1990; *Key Facts*, 1989; Conseil canadien de la fourrure (3); Conseil canadien de la fourrure (4)].

D'autres éléments assurent le bien-fondé du piégeage sur le plan environnemental : l'obligation de détenir un permis et la réglementation des saisons de piégeage, le piégeage sans cruauté des animaux et le fait que ce commerce ne met aucune espèce en danger d'extinction, [Herscovici, 1989; Herscovici, 1990; Barber, 1990; Institut canadien de la fourrure; Conseil canadien de la fourrure (1); *Key Facts*, 1989]. La fourrure est un produit naturel renouvelable qui ne pollue pas et est biodégradable [Conseil canadien de la fourrure (4); Herscovici, 1989). De plus, l'industrie de la fourrure ne met rien au rebut à proprement parler. Les animaux piégés dans le Nord par les peuples autochtones servent à se nourrir. Les carcasses des animaux d'élevage sont entièrement utilisées (elles servent d'engrais, d'huile de qualité supérieure et de librifiant) [Conseil canadien de la fourrure (2); Herscovici, 1989].

Un grand nombre de consommateurs ne se rendent pas compte de l'importance de l'industrie de la fourrure et à quel point elle est saine pour l'environnement. Que peut-on faire? L'industrie de la fourrure, détaillants et stylistes compris, doivent sensibiliser le grand public aux avantages de leurs produits du point de vue de l'environnement. Une entreprise commerciale suppose une relation entre les acheteurs et les vendeurs; l'information et l'éducation du public doivent faire partie intégrante de toute politique responsable concernant l'utilisation de la faune (Herscovici, 1989, p. 49).

Synthétique ou naturel?

Une autre controverse environnementale agite l'industrie de la fourrure : doit-on utiliser des fibres naturelles ou des fibres synthétiques? Les fibres naturelles, telles que la soie, la laine, le coton, le lin et la fourrure, ne sont pas des ressources limitées. Elles sont renouvelables et biodégradables. Même si certaines substances employées dans la production des sources de fibres naturelles sont préjudiciables à l'environnement, notamment les engrais azotés et les pesticides, leur usage peut être contrôlé. Les fibres et les étoffes naturelles seront toujours un choix plus sain pour l'environnement que les fibres et les étoffres synthétiques (si elles sont produites de la bonne façon) (Herscovici, 1989). Une plus grande utilisation des fibres naturelles et une moins forte utilisation des fibres chimiques par les fabricants de textiles et de vêtements pourraient exercer une influence bénéfique sur les attitudes et les actions des consommateurs.

Les fibres synthétiques, de leur côté, exigent l'utilisation de dérivées du pétrole, des ressources non renouvelables et non biodégradables (Herscovici, 1989). Toutefois, les fibres synthétiques se sont déjà taillées une place de choix dans la société et il est peu probable que leur utilisation connaîtra une baisse au cours des prochaines années. Les consommateurs aiment pouvoir se procurer des tissus autodéfroissables et des étoffes spéciales. Certaines fibres synthétiques jouent un rôle crucial dans la fabrication des vêtements de protection et de matériel industriel. De toute évidence, l'industrie de la mode ne peut abandonner les fibres chimiques.

De quelle façon les fibres chimiques peuvent-elles être plus écologiques?

C'est au moment de la production que l'industrie peut faire une différence au point de vue de l'environnement en ce qui a trait aux fibres synthétiques. Les fabricants peuvent choisir d'acheter des solvants, des colorants et des produits chimiques sans danger pour l'environnement. Malheureusement, même si l'utilisation de colorants naturels semble être la solution logique à la production de tissus de couleurs, les colorants ne conviennent pas aux fibres synthétiques (Smith & Wagner, 1991). Le prélèvement de colorants naturels peut entraîner des problèmes puisqu'il requiert une main-d'oeuvre importante et beaucoup d'énergie et exige une logistique complexe (Smith & Wagner, 1991). Les sources de colorants naturels produisent de très petites quantités de colorant; par exemple, seulement 2 p. 100 de la feuille de l'indigotier peut être utilisée comme colorant, ce qui signifie que 98 p. 100 de la feuille serait jetée (Smith & Wagner, 1991). À long terme, ceci ne semble pas une bonne solution écologique.

On peut aussi recycler les solvants et les effluents qu'utilise l'industrie de la mode. L'adsorption des vapeurs au moyen de charbon actif produit des solvants utilisables avec un minimum de pollution secondaire. Dans de nombreux cas, l'eau de condensation peut être déversée dans les égouts sans qu'il soit nécessaire de recourir à d'autres traitements après la purge (Oakes, 1985). L'adsorption par charbon actif s'est révélée l'une des méthodes les plus viables et les plus attrayantes du point de vue économique pour ce qui est du contrôle des solvants organiques (Oakes, 1985). Parmi d'autres possibilités, on retrouve le recyclage des effluents liquides des ateliers de teinture (Durig & Hausmann, 1979) et une nouvelle façon d'utiliser des colorants réactifs conjointement à un substrat tel que la fibre de jute ou les sciures de bois afin d'absorber divers métaux lourds extraits de solutions liquides lors du traitement des effluents (Shukla & Sakhardande, 1991). Les eaux usées peuvent également être traitées au moyen de certains polymères organiques (Davis, 1991) ou de traitements électrochimiques comprenant la formation d'une «matrice de fer insoluble» qui absorbe les métaux lourds, les colorants, les pigments et autres contaminants de l'eau et en cause la co-précipitation (Kennedy, 1991, p. 27).

On peut avoir recours à des techniques plus écologiques pour fabriquer certains types de tissus. Par exemple, il est possible de remplacer les techniques de contre-collage par flamme servant à la fabrication des tissus enduits, par des techniques de contre-collage à la poudre; certains revêtements peuvent également être produits sans l'utilisation de solvants (qui sont souvent des dérivés non renouvelables du pétrole) (Woodruff, 1990). De nouveaux types d'usines d'incinération peuvent également être produits.

Les usines qui permettraient de réduire les émissions d'hydrocarbures et d'alimenter d'autres parties de l'usine seraient certainement les plus soucieuses de l'environnement (Woodruff, 1990).

Faire de neuf avec du vieux?

Pour respecter l'environnement, l'industrie de la mode pourrait aussi adopter la stratégie proactive suivante : combiner des vêtements anciens ou usagés avec des vêtements neufs au moment de la conception et de la fabrication des vêtements. Il est possible de se procurer des vêtements usagés à bon prix et de les adapter à la nouvelle mode par l'ajout d'accessoires, etc. Il faudrait encourager les consommateurs à acheter ces «nouveaux» articles et à en créer d'autres de leur cru. On doit également encourager et appuyer le recyclage en vêtements neufs des fibres de vêtements usés ou des rebuts des fabricants.

Comment créer une nouvelle image

En résumé, il faut absolument que l'industrie canadienne de la mode respecte l'environnement et encourage les consommateurs à en faire autant. L'education sur l'industrie de la fourrure et l'expansion de celle-ci sont d'une importance cruciale. L'utilisation des fibres naturelles, le recyclage des solvants et le traitement des rebuts constituent tous les éléments essentiels à un environnement plus propre. Enfin, la réutilisation et le recyclage efficaces des vêtements devient une nouvelle voie qui mérite notre attention. L'industrie de la mode a donc maintes occasions de respecter l'environnement et d'adopter des techniques écologiques; elle doit aussi faire la promotion de ses démarches auprès des consommateurs afin que tous en retirent les avantages. □

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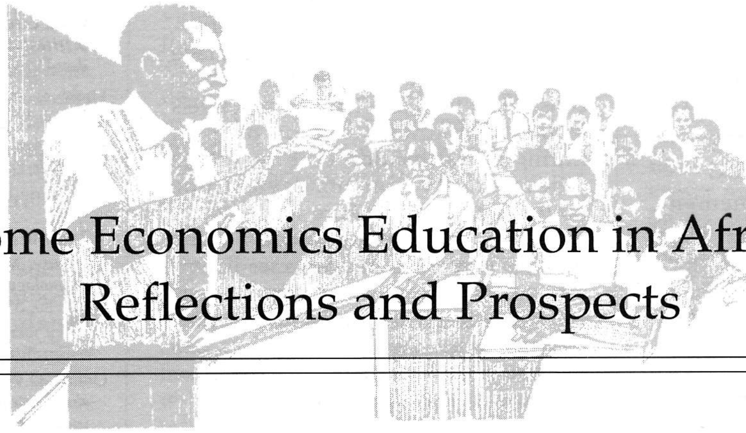

Home Economics Education in Africa: Reflections and Prospects

Judith Waudo

Abstract

Home economics since its inception has been concerned with the welfare of the family. The field's mission has always been the improvement of daily life for families and individuals. Historically, home economics in Africa was composed of informal education where young girls were prepared for homemaking skills and societal roles. Africa inherited its home economics programs from the British and the French. After independence of many African countries, many future home economic educators were trained in the European countries and North America. This has caused conflict in terms of Africa's cultural identity and as a result has influenced the present home economics education in Africa. The present home economics programs have been accused of being irrelevant to the African developmental needs, foreign in content, and lacking in critical thinking. The major constraints for implementing home economics programs in Africa are: a negative image accorded to the profession, lack of teaching materials and equipment, lack of qualified staff at all levels, and lack of training, research facilities, and networking. In order to address the changing needs of society, home economics education needs to reform its curriculum to reflect the countries' developmental needs, and to reach the rural and urban poor because they are the ones who need home economics services the most and need to make the mission of its profession more focussed so as to avoid being misunderstood by society at large.

Résumé

Depuis le début, l'économie familiale a eu de l'intérêt pour le bien-être de la famille. Ce champ d'activité a toujours eu la mission d'améliorer la vie quotidienne des familles et des personnes. Par le passé, l'économie familiale, en Afrique, comprenait l'enseignement informel à l'aide duquel on préparait les jeunes filles à l'entretien domestique et à leurs fonctions sociales. L'Afrique a hérité ses programmes d'économie familiale des Britanniques et des Français. Après l'indépendance d'un grand nombre de pays africains, nombreuses sont les économistes familiales qui ont été formées en Europe et en Amérique du Nord. Cette situation a été une source de conflits relativement à l'identité culturelle africaine et a eu, par conséquent, des répercussions sur l'enseignement actuel de l'économie familiale en Afrique. On a dénoncé, dans les cours d'économie familiale, le manque de rapport avec les besoins de l'Afrique en matière de développement, le contenu étranger et l'absence d'esprit critique. La mise en oeuvre de cours d'économie familiale en Afrique est soumise à des contrainetes importantes : l'image négative de la profession, le manque de matériel et d'équipement didactiques, le manque de personnel compétent à tous les niveaux et le manque de formation, d'installations de recherche et de réseaux. Pour répondre aux nouveaux besoins de la société, le programme d'études en économie familiale doit être révisée de manière à refléter les besoins des pays en matière de développement et à attirer les pauvres des régions rurales et urbaines parce que ce sont eux qui ont le plus besoin de services d'économie familiale. Il faut focaliser davantage le rôle de la profession afin d'éviter l'incompréhension de la société en général.

Home economics, since its inception, has concerned itself with the welfare of the family. The field's mission has always been the improvement of daily life for families and individuals. According to Brown and Paolucci (1979), the mission of home economics is to enable families, both as individual units and generally as a social institution to build and maintain systems of action which lead (1) to maturing in individual self-formation, and (2) to enlightened, cooperative participation in the critique and formulation of social goals as a means for accomplishing them (p. 23). The aim of home economics education is to improve people's family life by influencing their understanding of themselves and their new environment and of attitudes towards these changes (Brown, 1980). Home economics programs in Africa have tried to reflect this mission or rather to accept the North American paradigm. This article focusses on the present practices, constraints, and future prospects of home economics education in Africa.

History

Before the coming of the Europeans to Africa, African societies had their own informal education which prepared young women for their future responsibilities. The history of home

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economics education shows that African countries inherited educational programs from the British and the French. The aim of home economics education then was to train servants to work for colonial masters. The curriculum, content, textbooks as well as teaching materials, were all designed to inculcate European lifestyles which included their values, norms, and standards in various aspects of life. With this orientation came a new lifestyle which contributed to the erosion of the African culture and created conflict between the traditional culture and the Western culture (Eghan, 1987). The results have been that people were conditioned to look down on their own culture and accept everything foreign as good.

Present Practices

The present home economics programs have continued to perpetuate this attitude. For example, in the classrooms, the use of local materials is equated with backwardness while the foreign items are equated with modernization and affluence by both students and teachers. Even today African home economics programs tend to emulate programs in the West even though they may not necessarily be practical to the general needs of African society. Perceived attitudes that foreign "is better" lingers on. For example, the structure of home economics programs in Africa at the university level is organized along the traditional specialization found in the West, for example, foods and nutrition, clothing and textiles, home management, child development, and family relations. Courses are distributed across these areas because that structure is viewed by African trainers as role models. Moreover, many highly educated home economists have been trained in the United States, Canada, and Britain and therefore bring this Western influence to curriculum and instruction. In addition, due to lack and/or shortage of local teaching resources such as textbooks, many teaching materials are imported but are not suitable to local needs.

Home economics is offered at primary school levels for both sexes. At the high school level, the subject tends to be gender-oriented and is accepted only by girls. Due to the negative attitudes accorded to the discipline, only a few girls in Kenya are inclined to pursue the subject in high school (Sigot, 1988).

Despite this, the more highly advanced and populated countries in Africa offer home economics at the university level. In Kenya and Nigeria, for example, there are several colleges, institutes, and universities offering home economics programs. Other countries have no degree level programs but offer home economics at teacher training colleges, technical colleges, and agricultural institutes.

Home economics programs, particularly at the undergraduate levels, focus on subject matter rather than addressing the challenging issues specific to women and the country's development needs. It has been suggested by Bands (1992) that in order to meet female career needs, the curriculum should address myths surrounding management and leadership. Furthermore, home economics programs at the university level have been criticized for being abstract, urban-biased, elitist, and not focussed on the needs of the majority of people, namely, rural families and the urban poor, who need their services most. Moreover, the curricula emphasize subject matter with only minimal consideration for practical application to real life problems. Consequently, students leave the university with limited application and problem solving skills.

The irony is that home economics is one of the subjects suggested to help women with developmental issues in Africa since it reaches many women through both formal and informal education (FAO, 1986). Eghan (1987) reported that many home economists in Africa are aware of the issues of women and accept the fact that home economics should expand its curriculum to include women in development, agricultural production, and utilization. However, most home economists have little formal training in agricultural subjects. Such training would help home economists address the practical problems of homes and families. A few educational programs such as those at Cairo and Alexandria Universities in Egypt and Egerton University in Kenya, offer a core 2-year agriculture program for both home economics and agriculture students.

Constraints Facing Home Economics Education

The following constraints have been identified by various groups in the implementation of home economics education in Africa: lack of qualified staff at every level; lack of funds to support programs; lack of classrooms, teaching resources, and equipment; negative attitudes toward the profession; lack of training facilities such as colleges and equipment, research documentation, and communication related to home economics subject areas; little collaboration or networking within Africa; lack of impact on women's programs; conflict of values among the educated home economists' lack of unified understanding regarding a contemporary problem-solving curriculum approach; shortage of teaching time allocated to the subject; and lack of involvement of the community in curriculum development and implementation (FAO, 1986; HEAA, 1989; Eghan, 1987).

What the Future Holds

In the 1990s, home economics programs in Africa must have not only subject matter content that addresses the changing needs of individuals and families, but also include future-oriented career strategies that will enable students to cope with the changing labor force mix. As a profession, home economics educators need to develop the talents of future leaders. In order to address women's career goals, the curriculum should address myths surrounding management and leadership (Bands, 1992). There is a great need for training in agriculture because such training will help home economists address the practical problems of families. Since the purpose and image of home economics is still vague, there is need to clarify the purpose and practice of home economics by sensitizing home economists to the mission and professional goals of the field so that its programs are not misunderstood. Home economists should clarify the definitions and the assumptions of the home economics curriculum with regards to the learner and appropriate knowledge (Eghan, 1987). This should be based on the kind of person home economics intends to produce. Since we are living in an interdependent and changing world, home economists need to understand and cope with change by reflecting on it, listening to one another, learning from other disciplines, learning from the field, and learning from our colleagues abroad. By doing so home economists in Africa will be able to explore new ideas, develop new skills, become self-reliant, and become familiar with new technologies. The need for both global perspectives and greater integration in home economics have also been identi-

fied as important issues for home economics (Prehm, 1991). Home economics, if given a broader perspective, is likely to address the needs of families more adequately. The more recent trend of establishing twinning programs with associations/universities abroad is also a move in the right direction (Caribbean Home Economics Association, 1983). This is because such linkages help strengthen the profession through research, training, curriculum development, and networking ventures. However, in such twinning programs, North American home economics models should not be allowed to dominate any projects which are undertaken together.

Home economists as change agents need to understand the needs of their clients if they are to successfully address the needs of families in the future. There is also a need to involve men in issues affecting families because without their involvement nothing is likely to change. Men in the African tradition control most of the family resources. If home economists are to address the changing needs of families, they must not only consider the range of content commonly associated with home economics but also engage in areas of expertise or dialogue with other professionals (Prehm, 1991; FAO, 1986).

Since most women in Africa are engaged in business ventures, all areas of home economics can incorporate business-related aspects to make the curriculum more relevant for entrepreneurs. Gitobu and Gritzmacher (1991) suggested that entrepreneurship can be incorporated into home economics curriculum and studied in its cultural, social, political, and economic context. Home economics programs in Africa can provide relevant business training either independently or through incorporation into subjects such as family resource management, foods and nutrition, and clothing and textiles. Due to the current problems facing Africa such as famine, economic crisis, and structural adjustment and programs imposed by the World Bank and the International Monetary Fund (IMF), home economics needs to play a crucial role in helping families deal with these changes by providing relevant education and services.

The following needs were further identified at a recent workshop in Kenya: home economics curriculum review at all levels, development of local teaching methods and materials, changing home economics status through clarification of definitions and potential contribution to development, networking with women's organizations, changing the image of women and their work in Africa, training in appropriate household technology, food security, intra-household resource allocation and management, and preparation of a home economics directory for Africa (HEAA, 1989).

Recommendations

Based on the prevailing situation of home economics programs in Africa, the following recommendations are suggested:

- In order to make home economics relevant to the African context, the process needs to begin by sensitizing future home economics educators to their own culture. There is a tendency for highly educated Africans to be alienated from their own culture.
- Since home economics is a practical subject, there is a need for an overall transformation of the educational reward system in which technical subjects are valued. Programs which concentrate on passing the examination rather than applying knowledge to practical problems need to be discouraged.
- Workshops, seminars, conferences, and in-servicing should be organized to help home economics educators develop competence in addressing the practical problems of families.
- Efforts should go into development of teaching materials that are suitable and relevant to local needs.
- The curriculum should be revised so that it reflects the needs of the majority of people. The curriculum reforms should be built from the bottom-up involving all concerned: teachers, community leaders, parents, and students.
- Instruction, research, and extension must take into consideration the psychological, cultural, and economic needs of individuals and families.
- More collaborative research is needed in order to effectively address critical issues of families and to improve the knowledge base and the resulting practice of home economics. □

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Home Economics — From Home to College

Mary Pelton

Abstract

Even in ancient times, it was important that girls and women have a knowledge of the management of the home. Traditionally, homemaking skills were transmitted within the family from older female members to younger ones. Attendance at school gradually undermined this traditional pattern of education. Training of specialist teachers became a necessity when the schools began to undertake the instruction of homemaking skills. Universities across Canada established courses in home economics, originally as teacher training programs. By 1930 there were nine such courses, rising to sixteen by 1960. In reviewing the historical development of home economics in Canada, the paper suggests that the issues addressed by home economists today are just as important and relevant as they were at the turn of the century.

Résumé

Même dans les temps anciens, il était important que les jeunes filles et les femmes sachent s'occuper du foyer. Traditionnellement, c'était les femmes plus âgées de la famille qui initiaient les jeunes filles aux arts ménagers. La fréquentation de l'école a graduellement sapé l'importance de ce modèle d'éducation traditionnel. La formation d'enseignantes spécialisées s'est avérée nécessaire lorsque les écoles ont commencé à enseigner l'entretien domestique. Partout au Canada, des universités ont mis sur pied des cours en économie familiale qu'elles intégraient, à l'origine, au programme de formation des maîtres. En 1930, ces cours étaient au nombre de neuf; en 1960, on en comptait seize. Par son étude de l'histoire de l'économie familiale au Canada, cet article suggère que les questions auxquelles s'intéressent les économistes familiales de nos jours sont tout aussi importantes et pertinentes qu'elles l'étaient au tournant du siècle.

As long ago as Greek times, care of the home was a concern of all family members. The husband, the head of the Greek household, managed the farm or estate and was expected to instruct his wife in the matters which he delegated to her. Women needed to know about the arts of sewing and housekeeping so that they could instruct the maid in the proper execution of her duties, but the husband was responsible if the household was poorly managed (Xenophan, cited in Wilson, 1966).

Throughout the ages, instruction of girls in the skills of homemaking — food preparation, clothing provision and care, and the proper care and management of the home — was carried out by mothers and by the older female members of the household: grandmothers, aunts, or older sisters (Rowles, 1964, 1966). The continuation of traditional values, culture of music, poetry, and stories from the older generation to the next was ensured through demonstration and contact between the age groups. Homemaking knowledge was acquired gradually as a girl developed skills over the years, enabling her to become increasingly adept at various household tasks. Ultimately, she became a competent homemaker, able to run her own home efficiently and to care for her own husband and family.

As schools were introduced for children, these traditional ways of transmitting knowledge were less practical. When children spent most of each day at school, the time available for learning homemaking skills lessened. Thus, school became the obvious place where such knowledge could be transmitted (Rowles, 1964).

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Acknowledgments

The author extends thanks to Professor Clare Pangman, Faculty of Education, University of Manitoba (for whom this paper was originally written) for his encouragement and enthusiasm.

Formal training in "home economics" had begun.

This paper outlines the development of home economics in Canada. Because the influence of developments in "home economics" outside of Canada cannot be overlooked when tracing the progress in Canada, it first reviews events that occurred in England and the United States. It further contends that issues addressed by home economists today are as important and relevant as they were at the turn of the century.

Home Economics in England

Eighteenth century educationalists such as Erasmus Darwin (1731-1802) and Hannah More (1745-1833) stressed the importance of the study of homemaking skills for girls of well-to-do families so that they would be able to instruct their servants in the proper conduct of the home (Sillitoe, 1933). Needlework had been taught to girls in British schools for many years, sometimes as early as kindergarten (MacDonald, 1986); however, it was not until 1840 that it was introduced as a subject (Sillitoe, 1933). By 1846, needlework was "expected to be taught to girls in elementary schools" (Sillitoe, 1933, p. 15), but was not made a compulsory subject until 1862. Needlework was often poorly taught, however, as grants to the schools were based on the results in the basic "three R's" (Sillitoe, 1933). Needlework taught in the "Ragged Schools" (those schools established for children whose personal hygiene excluded them from attending ordinary schools) was used as a starting point for personal cleanliness (Sillitoe, 1933). Clean hands were important to good needlework. The Education Act of 1870 established school boards, made elementary education compulsory, and made "domestic economy" a compulsory subject for girls (Sillitoe, 1933).

Rapid growth of towns and many changes in social structures throughout Britain were caused by the industrial revolution. Many people found themselves in conditions much different from what they had been used to. Working classes lived in cramped quarters and had only a small range of foods available. Well-to-do classes were often untutored in proper cookery methods. Many working men were the ones who chose the Sunday "joint" and brought it home, often over-indulging the budget for the entire week. Utensils were scanty and inadequate. Poor diets became prevalent (Sillitoe, 1933).

Cooking became "fashionable" after the International Exhibition of 1873 in South Kensington which included demonstrations and lectures in a well-equipped and conveniently set-out area (Sillitoe, 1933). The following year, the National Training School of Cookery was established in the Exhibition building. Within less than ten years, there were cooking schools in Liverpool, Leeds, Edinburgh, Glasgow, Manchester, and Leicester (Rowles, 1964). As more schools were established, standards were set for graduates and teachers. However, classes mainly reached the middle and upper classes. Those who most needed instruction did not receive it. Eventually, "practice lessons in cookery for elementary school girls were introduced in 1878" (Sillitoe, 1933, p. 31). These were "hands-on" practical lessons, in contrast to the demonstration-only lessons which had been conducted in the several years preceding and was the method of instruction for adult classes.

Home Economics in the United States

In the United States, a similar pattern of development could be seen. After many years of unofficial instruction in sewing, the Commissioner of Education for Massachusetts recommended in 1873 that sewing be gradually introduced into classes (Rowles, 1964); however, Rowles reported that grade schools in Boston had been giving needlework since 1835, and Bevier (cited in Budewig, 1957) claimed that sewing was taught as early as 1798 in Massachusetts public schools.

The Boston Normal School of Cooking was started in 1886, due to the efforts of Mrs. Hemenway who also gave leadership, time, and money for the introduction into Boston schools of cooking, sewing, and kindergartens (Rowles, 1964). Mrs. Fannie Farmer was one of the early principals (Wilson, 1966). The purpose of the Normal School was "to provide teachers for School Kitchens of Boston" (Rowles, 1964, p. 8).

It was important that teacher training institutions be established so that "home economics" instruction could be carried out not only in the public schools, but also in the colleges (Wilson, 1966). Normal schools addressed this need in part, but other institutions were involved in home economics teacher training: YWCA in New York and St. Louis; Pratt Institute, Brooklyn, New York; Drexel Institute, Pennsylvania; and New York College for Training Teachers (Wilson, 1966). The Pratt Institute gave a two-year Normal School course in domestic science for the purpose of providing teachers for public and private schools and colleges (Rowles, 1964). Drexel Institute at first offered two-year courses in home economics as well as shorter special courses. Later, both institutions offered home economics degree programs (Rowles, 1964).

The American Land-Grant Act of 1862 provided federal land to the states for the purpose of establishing colleges ". . . to teach such branches of learning as are related to agriculture and the mechanic arts . . . to promote the liberal and practical education of the industrial classes . . ." (The Morrill [Land-Grant College] Act, 1862, cited in Budewig, 1957, p. 172). The first degree programs in the world in home economics were established in the Land-Grant Colleges of the mid-western United States (Rowles, 1964). Between 1870 and 1874, home economics was begun in the Colleges established in Kansas, Iowa, and Illinois (Budewig, 1957). By 1890, there were programs in household science in the Agricultural Colleges of Kansas, Iowa, Oregon, and South Dakota and by 1906, there were thirty-six Land Grant Colleges teaching home economics (Rowles, 1964).

Homemaking Skills Develop in Canada

Homemaking skills in Canada developed almost simultaneously in several areas of Canada. Their development was influenced by both the religious schools and women's groups in Canada.

Quebec

About 1668, Francois de Laval, the first bishop of Canada, established a farm school in Quebec for French and Indian boys. Instruction for the girls was handled by the Ursuline Nuns. Boys were instructed in aspects of agricultural education; girls were taught household tasks as part of their education. It is generally agreed by researchers that this was the earliest recorded formal training of homemaking skills in Canada (Craig, 1945; Harris, 1976; Moxon, 1936; Simpson, 1966; Wilson, 1966).Moxon (cited in Wilson, 1966) reported that King Louis XIV of France gave special grants to

the sisters for teaching the girls and bought wool so that knitting could be taught. Later, the spinning and weaving of flax was introduced (Craig, 1945)

In 1818, Bishop Provencher, Reverend S. Dumoulen, and several French Canadian families arrived at the settlement at Red River. The new settlers brought with them the skills of spinning flax (linen) and wool, for which they used buffalo hair, as there were no sheep in their area. The Indian and Metis women were skilled in the arts of leather work — sewing jackets and moccasins using sinew — and beading, using colored beads and dyed porcupine quills. The first school for girls was opened in 1828 by Bishop Provencher. Girls in the community were taught spinning and weaving of flax and buffalo hair (Wilson, 1966).

A school for girls was opened in August, 1844 by the Sisters of Charity, known as the Grey Nuns, who had come from Montreal at Bishop Provencher's request, for the express purpose of establishing a school. The sisters gave instruction in language, mathematics, history, and geography as well as spinning, weaving, knitting, crocheting, and embroidery (Wilson, 1966). Records show that classes in cooking and sewing were held in the building known as Tache Academy Pensionnat in 1868, which was later a training school for teachers (1882-1897) (Wilson, 1966).

The Grey Nuns opened St. Mary's Academy in 1869. Both Protestant and Catholic girls attended, but the Protestants received extra sewing classes during the time that the Catholics received religious instruction (Wilson, 1966). Teachers from England were brought out to ensure a "good education" (Wilson, 1966) in the Protestant schools where spinning and weaving was taught, along with the "basics".

During the last quarter of the nineteenth century, there was a great deal of activity and rapid advancement of formal teaching of homemaking skills in Canada. This was no doubt influenced by the development of home economics in both the United States and Europe. However, the influence of women's organizations of the time also played a big part.

Ontario

Mrs. John Harvie and sixty-seven other Canadian women attended the World's Congress of Representative Women held in May 1893 in Chicago (Rowles, 1964). Before the end of that year, the women had organized the formation of both the National Council of Women of Canada and the Young Women's Christian Association. Mrs. Adelaide Hoodless was treasurer of the former and president of the Hamilton group of the latter (National president in 1895). At the first annual meeting of the National Council of Women of Canada, April, 1894, a resolution was passed urging the group to "do all in its power to further the introduction of industrial (or manual) training for girls into the public school system of Canada . . ." (Rowles, cited in Harris, 1976).

Mrs. Hoodless was more forthright. She made a personal delegation, along with four other women, to the Board of Education of Hamilton, Ontario. There were definite requests made:

> that classes in cooking and sewing be added to the curriculum of the Hamilton public schools; that competent teachers be employed and that accommodation be provided in the two schools which were shortly to be built . . . (Rowles, 1964, p. 11).

Mrs. Hoodless proved to be most persistent. She determined what it was she wished to achieve and then did everything she possibly could to make it happen (MacDonald, 1986). She wanted "manual training" (home economics) for girls. The Hamilton Board of Education replied that this could not be done "because of the cost and the lack of trained teachers" (Rowles, 1964). Mrs. Hoodless replied that two qualified teachers could be supplied as a consequence of domestic science classes which had been conducted at Hamilton YWCA for several years. This did not meet with the favor of the Board, but it did highlight the fact that a program for the education of domestic science teachers must be established if the goal of introducing domestic science into the schools was to be achieved. Again, the National Council of Women of Canada led the way by passing a resolution in 1896 to the effect that provincial Normal Schools secure training courses so that qualified teachers would be available for the public school programs in manual arts (Rowles, 1964).

In 1898, arrangements were made to upgrade the Hamilton YWCA premises, using a grant from the Department of Education, so that the school could become a training school for domestic science teachers. The Ontario Normal School of Domestic Science and Art opened in February, 1900 with Mrs. Adelaide Hoodless as president of the Board of Directors (MacDonald, 1986). According to Mrs. Hoodless, it was the "first school in Canada to receive government funds for the education of domestic science teachers" (Rowles, 1964, p. 18).

Mrs. Hoodless worked on an even more ambitious project, that of developing university courses in domestic science (MacDonald, 1986). Money was needed so she approached Sir William Macdonald, a wealthy tobacco merchant in Montreal, with the proposal of establishing university-level courses at Guelph in connection with the already-established Ontario Agricultural College. The idea was to close the Normal School in Hamilton and re-open in Guelph, but money was needed for buildings in Guelph. No doubt the charm of this well-spoken, well-dressed, good-looking Victorian woman of class, together with her unstoppable determination had much to do with Mrs. Hoodless' success of securing the sponsorship and financial backing of Sir William Macdonald. When Sir William told Mrs. Hoodless that he could not support domestic science in Ontario unless he did something for Quebec, she is reported to have countered "Then build one in Quebec, too. They need it" (MacDonald, 1986, p. 120).

In September, 1903, Macdonald Institute was opened with Miss Mary Urie Watson, of Ayr, Ontario as principal (Rowles, 1964), incorporating the Ontario School of Domestic Science and Art (McCready, 1955). Macdonald Institute offered a two-year diploma course which qualified the graduates to teach domestic science in elementary schools. A one-year "Professional Housekeeper's Course" was also offered for women wishing to become "matrons and skilled housekeepers" (Harris, 1976, p. 285).

Guelph was not the only place where programs were developing. In Toronto in 1896, Lillian Massey, only daughter of Hart A. Massey, began cooking lessons in the Fred Victor Misson (Rowles, 1964). It was in June, 1900 that the Victor School of Household Science and Arts opened on the third floor of the Mission by (now) Lillian Massey Treble. The next year, the name of the school was

changed to "Lillian Massey School" and became known world-wide as other schools of household science were established with the help of Mrs. Treble's money. Graduates of the two-year course were granted teacher's certificates. After 1903 the Minister of Education for Ontario reported that the University of Toronto had established a four-year course leading to the degree of Bachelor of Household Science (Rowles, 1964). In 1906, a household science building was built on the University grounds, using Mrs. Treble's money (Rowles, 1964). The program at the University of Toronto was the only degree program in Canada until 1918-1919 when both McGill and Manitoba Universities announced their four-year programs (Rowles, 1964).

Further Developments in Quebec

In 1924, an agreement between Macdonald Insitute and the University of Toronto allowed a graduate of the two-year "Associate" course at Macdonald Institute to enter the University of Toronto four-year program for the BHSc degree and receive credit for some of the work done already. In 1948, the first year of a four-year degree program was offered at Macdonald Institute in Guelph. When this class graduated in 1952, they received the Bachelor of Household Science degree conferred by University of Toronto. The one-year diploma course continued at Macdonald Institute until 1963-64 (Rowles, 1964).

Part of the "Macdonald-Robertson Movement", through which Sir William Macdonald established Macdonald Institute in Guelph, was Sir William's plan to build Macdonald College (in Quebec province) and give it as a gift to McGill University (Rowles, 1964). Macdonald College was to be an English language college in the province of Quebec for training teachers and providing education in home economics and agriculture (Rowles, 1964). Land was purchased in 1904 in Ste. Anne de Bellvue and building began in May 1905. Macdonald College formally became part of McGill University in November 1906. James W. Robertson collaborated with Sir William Macdonald in the planning of the College and the choice of instructors, and served as Macdonald College's inaugural principal.

One- and two-year courses in home-making were offered as well as short courses. In 1910 the two-year program was upgraded to a "Housekeeper's Course" (Harris, 1976) and in 1914 it became Institutional Administration. Dietetics was its main focus. This was the result of the work of Katherine Fisher. When she proposed the development of a degree program in home economics to McGill principal Sir William Peterson in 1916, she was rebuffed by his assertion: "It just isn't done, Miss Fisher. You can't raise home economics up into higher education" (Rowles, 1964, p. 60). Miss Fisher resigned but the degree program was established the next year. The first BHS was granted in 1922 (Harris, 1976).

A Food Management option was offered at McGill University in 1963 and was open to both men and women, showing that the discipline of Household Science was no longer a female-only domain. The School of Household Science changed its name to School of Food Science in 1970, thus encouraging more male participation (Gillett, 1981).

Manitoba

The resolution of the National Council of Women of Canada passed in 1894 was heard in Manitoba as well as the rest of the country. The local council (Winnipeg) became very energetic in trying to introduce sewing into public schools. As in the east, the problem of qualified instructors would become a problem if this goal was to be reached.

An offer of $2,000 plus $250.00 per year for two years was made by Lillian Massey Treble in 1901 to establish a domestic training school in Winnipeg, on condition that Winnipeg supply the necessary rooms and operate the school for three years (Wilson, 1966). A Department of Household Science was set up with Miss R. Lennox in charge of the non-credit course (Home Economics: 1910-1960). At the end of the three years, the experiment was discontinued as further government funding was not forthcoming. The equipment was shipped to Mount Allison University, New Brunswick.

Plans were being made to establish the Manitoba Agricultural College at Tuxedo and to introduce Domestic Science (Wilson, 1966). In 1903, an act of Provincial Legislature established the Manitoba Agricultural College consisting of the department of agriculture for men and domestic science (or home economics) for women. The first Agricultural College building was officially opened in 1906, but it was not until 1910 that the home economics department began in temporary quarters in the basement of the Administration building (Wilson, 1966).

> The early program...was planned to fit the needs of rural young women, the potential leaders in farm communities, as a counterpart of the agricultural program for boys (Wilson, 1966, p. 39).

Home economics classes moved from Tuxedo to the new location in St. Vital (now Fort Garry), but the planned new building was delayed because of World War I, so temporary accommodation was arranged in the second, third, and basement floors of the Administration building — a condition which was to exist for thirty-seven years (Wilson, 1966).

The first courses taught were short — four, then five months. In 1912, the course was extended a further five months (Wilson, 1966). A professional housekeepers' course was introduced in 1914, which was developed and extended to Institutional Management in 1916. The degree course was established in May, 1915, and the first degrees (BHS) conferred in 1918 (Rowles, 1964).

During the first three decades of this century, nine Canadian universities established programs for a home economics degree. By the end of 1960, this had risen to sixteen (Rowles, 1964). Home economics was a growing field in which a graduate could feel there was a contribution to be made.

Outlook for Home Economics Today–From College to Home?

In the latter part of the nineteenth century and the early part of this century, home life was under stress from many sources. Women were expected to run the household smoothly and efficiently, but there were none of the current conveniences. Washing was done with a scrub-board and mangle; irons were heavy; there were no wash-and-wear fabrics and most dresses had many yards (9 and more!) in them. Kitchens were poorly organized; there were no refrigerators or freezers; equipment was poorly designed; there were no convenience foods. If the children fell ill, nursing care fell on mother and remedies were rudimentary. If a family was well off, servants could be hired to do some of the work, but their

stay was often short, as they left service for marriage.

Some women were taking employment outside of the home to make ends meet; however, in "polite" society this was frowned upon. The change was beginning to become evident: women were becoming "people". Some women began to enter male-dominated fields of law, dentistry, and medicine. It was in this milieu that home economics had its beginning.

The early leaders in home economics were interested in helping women to carry out their duties in the home in a more efficient manner — to become better homemakers. Stamp (cited in Kieren, Vaines, Badir, 1984) reported that Adelaide Hoodless saw that the role of home economics was "to help women better carry out their God-given place in life" (p. 8); that is, to fulfil their role as wife and mother. Whereas, not all would agree with such a narrow view, the concerns of home economics were-and remain — concerns for home, family, and community life (Kieren, et al. 1984). When home economics was introduced, its mission was to raise the standard of living not only of the girls taking the program, but also of the low income family (Rowles, 1964).

Today, the low-income family is still a concern. Increasing numbers of young people fend for themselves and live without the family structure as we have known it over the years. Today's view of home economics, even more than before, needs to look at values, morals, ethics, and promoting a better world (Smith, 1993). Today, home economics is an area of study for both men and women and is "knowledge for all human beings to live full lives" (DeZwart, 1991, p. 138). However, home economics is being relegated to lower ability pupils or is being withdrawn altogether. It appears that we need people with the enthusiasm, zeal, and the singularity of purpose, as Mrs. Hoodless had, to spread the word. □

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Sensory and Objective Evaluation of Fat Reduced Vanilla Cookies Containing Polydextrose

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Abstract

Litesse®, a highly refined polydextrose, was used at levels of 20, 40, and 60% (9:1, Litesse®:water, w/w) to formulate reduced fat vanilla cookies for evaluation by a six-member trained panel, instrumental techniques, and a 38-member consumer panel. Trained panel data from a 15-cm unstructured line scale showed significantly higher hardness, color, and chewiness but no differences in crumbliness, moisture absorption, and sweetness as the level of Litesse® increased in the cookies. These sensory results support the instrumental data which showed increased shear force and Hunter 'a' (redness) values but decreased Hunter 'L' (lightness) and spread values with increased levels of Litesse®. The consumer panel found no significant difference in acceptability of cookies made with either the 20 or 60% Litesse® substitution level. Although there were some differences in cookie characteristics, this study indicates that Litesse® could be used at a substitution level of up to 60%.

Résumé

On s'est servi de *Litesse*MD, un polydextrose très raffiné, dans des proportions de 20, 40 et 60 p. 100 (9 : 1, *Litesse* : eau, ratio en poids) pour confectionner des biscuits à la vanille à faible teneur en gras; ces biscuits ont ensuite fait l'objet d'une évaluation par un groupe de six experts, à l'aide d'appareils et par un conseil de clientèle de 38 personnes. Les données recueillies par le groupe d'experts, au moyen d'une échelle non structurée de 15 points, ont révélé une dureté, une couleur et une résistance à la dent beaucoup plus marquées, mais aucune différence quant à la friabilité, le taux d'absorption d'eau et la sucrosité, au fur et à mesure qu'on augmentait la proportion de *Litesse*. Ces résultats sensoriels viennent appuyer les données obtenues à l'aide d'appareils qui ont révélé une augmentation de l'effort tranchant et de la valeur *a* de Hunter (rougeur), mais une diminution de la valeur *L* de Hunter (légèreté) et de la valeur d'extension, lorsqu'on augmentait la proportion de *Litesse*. Le conseil de clientèle n'a noté aucune différence significative aux termes de l'acceptabilité des biscuits fabriqués selon une proportion de 20 ou de 60 p. 100 de *Litesse*. Même si on a remarqué certaines différences quant aux caractéristiques des biscuits, cette étude indique que le *Litesse* peut être utilisé dans une proportion de substitution pouvant s'élever à 60 p. 100.

High fat diets have been linked to adverse health effects including hypertension, heart disease, hypercholesterolemia, and cancer (Beirman & Chait, 1988; Einhorn & Lansberg, 1988; Shils, 1988). Consumers are being advised to include no more than 30% of energy as fat (Health and Welfare Canada, 1990). With nutrition and health awareness increasing, consumers are demanding reduced-fat products (Barr, 1990). The challenge to the food industry is to develop products which meet this demand without sacrificing eating pleasure.

It has been estimated that over 34% of Americans (Barr, 1990) and 20% of Canadians (Manning, 1992) use low-calorie products. Industry has responded to this marketing information by introducing an ever increasing number of new low sugar and fat products. In many foods, when ingredients are altered to reduce calories, there is an accompanying loss of flavor and texture which the consumer can readily detect (Beereboom, 1979). Sugar and fat provide much of the mouthfeel, flavor, and bulk of a prod-

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Note:
This research was conducted at the University of Alberta in the fall semester of 1991 as part of the senior level undergraduate FD NU 429 Experimental Foods course under the supervision and guidance of M. Slusar and E. LeBlanc.

Acknowledgments
Gratitude is expressed to the Specialty Chemicals Group of Pfizer Canada Ltd. for the supply of Litesse®.

uct and are the ingredients most often substituted or omitted in low-calorie products (Neville & Setser, 1986). In standard cookie recipes, if either sugar or fat is reduced, adjustments must be made in other ingredients to maintain a balanced formula that yields a product with an acceptable texture (Manley, 1991). Omitting fat from cookies results in a dough that is difficult to handle, a cookie that does not spread properly during baking, and a compact, hard baked product (Hoseney, 1986).

An ingredient presently gaining American and European acceptance in formulated food products is polydextrose. It is a potential low-caloric replacement for sugar and fat, developed by Pfizer Speciality Chemicals Inc. (Torres & Thomas, 1981). A new, highly refined polydextrose, Litesse®, has recently been introduced to the marketplace (Anonymous, 1986). Most studies using the original polydextrose have focussed on its use as a bulking agent in cookies (Bullock, Handel, Segall, & Wasserman, 1992; Lim, Setser, & Kim, 1989) and cakes (Neville and Setser, 1986) where sugar was replaced with an artificial sweetner. However, Stanyon and Costello (1990) did study its use as a substitute for hydrogenated shortening in biscuits. The objectives of this research were to use Litesse® to partially reduce fat in a vanilla cookie formulation without altering acceptability and to use sensory and objective methods to determine the extent to which fat could be successfully replaced.

Review of Literature

Properties of Polydextrose and its Metabolism. Due to its physical and chemical properties, polydextrose a randomly-bonded glucose polymer containing small amounts of sorbitol and citric acid (Allingham, 1982), is marketed as a substitute for sugar and fat in baked products. It is a water soluble powder which can be added directly to dry ingredients. The hygroscopic nature of polydextrose has been reported to increase the tenderness and softness of baked products (Anonymous, 1982). Studies have also shown that polydextrose can function as a texturizer and a bulking agent (Smiles, 1982). Polydextrose lacks sweetness and has an analyzed caloric value of 1 kcal/g (Figdor & Rennhard, 1981).

Almost 60% of polydextrose passes through the body unabsorbed; the gut microflora utilizes the rest to form volatile fatty acids and carbon dioxide (Anonymous, 1982). The safety of polydextrose has been carefully established (Allingham, 1982) and it is approved for use in Canada as a bodying and texturizing agent in carbohydrate-reduced food, sugar-free food, calorie-reduced food, and lower caloric food (Food and Drug Regulations, 1986). The maximum level of use is not specific but is in accordance with good manufacturing practice. A side effect of a laxative nature has been shown, however, with the consumption of ≥90 grams per day (Allingham, 1982). The Food and Drug Regulations (1988) require that the label on foods using polydextrose carry "a statement to the effect that sensitive individuals may experience a laxative effect from excessive consumption of foods containing polydextrose". The cookies formulated for this study at the highest fat replacement level have a calculated level of 90 g polydextrose/540g baked cookies.

Quality of Baked Products Made with Polydextrose. The mouthfeel, palatability, and texture of cookies made with polydextrose have been reported to be similar to those of their higher calorie counterparts (Anonymous, 1982). Lim *et al.* (1989) compared shortbread cookies using multiple sweetner systems with and without polydextrose. The study revealed that the shortbread cookies made with polydextrose had increased hardness and fracturability but decreased cohesiveness compared to cookies without polydextrose, yet were similar to the control cookies made with sucrose. Increased bitterness was found when polydextrose was used with some sweetner combinations. Bullock *et al.* (1992) reported that cookies made with polydextrose and acesulfame K had lower moisture content and required less force to break than those made with sucrose. Both types of cookies had similar reflectance values. Stanyon and Costello (1990) reported an increased darkening but no aftertaste in biscuits when polydextrose was substituted for shortening at levels of 0 to 60%. Neveille and Setser (1986) found that artificially sweetened cakes with various levels of polydextrose exhibited lower shrinkage and volume but were firmer and gummier at higher levels of substitution.

Materials and Methods

Formula and Experimental Design. Vanilla cookies were prepared with varying substitution levels of Litesse®, in place of margarine using the formula shown in Table 1. The study was replicated three times using a balanced block design for preparation and baking. Objective and sensory evaluations were performed on the cookies 24h

Table 1. Vanilla cookie formula wherein Litesse®: water (9:1, w/w) was substituted for margarine at the levels of 20, 40 and 60%.

	Substitution level (%)					
	20		40		60	
Ingredients	Wt(g)	% Total	Wt(g)	% Total	Wt(g)	% Total
Variable ingredients:						
Litesse®[a]	15.00	5.1	30.00	10.3	45.00	15.5
Margarine[b]	66.88	23.0	50.16	17.2	33.44	11.5
Water	1.72	0.6	3.44	1.2	5.16	1.8
Common ingredients:						
Flour[c]	120.00	41.2				
Sugar[d]	61.60	21.2				
Egg[e]	22.00	7.5				
Vanilla essence[f]	1.40	0.5				
Baking soda[g]	2.50	0.9				
Total ingredient weight	291.10	100.0				

[a]Lot #G12250 and V15301, Pfizer Specialty Chemicals Inc.
[b]West, Canola 100% pure vegetable.
[c]Robin Hood unbleached, all-purpose.
[d]Alberta fine granulated.
[e]Lucerne Grade A large.
[f]Club House.
[g]Cow Brand.

after baking. Cookies for both the trained and consumer panels were baked one day and stored overnight in airtight plastic containers at room temperature (21°C). The consumer panel was conducted using the 20 and 60% Litesse® treatments following the completion of the three replications of the trained panel and instrumental evaluations.

Preparation and Baking. All ingredients were weighed to 0.01 g on a Sartorius Model 2354 balance. The margarine was creamed in a stainless steel mixing bowl for 60 s using a Sunbeam Model HMD mixette on the Stir-Mix setting. The sugar was mixed in over 30 s on Stir-Mix. The egg and vanilla were added at once and mixed for 30 s on the same setting. The flour, Litesse®, and baking soda were sifted twice and added to the creamed mixture during the 60 s on the Fold-Blend setting, followed by addition of the water and resumption of mixing for another 60 s on Fold-Blend. Cookie dough was formed into a ball and rolled out between wax paper using 6 mm cleats that formed a rectangle. The rolled dough was chilled for 30 min in a refrigerator at 5°C, then cut using 39 mm round cookie cutters. Thirty cookies were placed in a 6 x 5 arrangement on a 43 cm x 36 cm aluminum cookie sheet which had been sprayed with PAM®. The cookie sheet was centred on a rack positioned 19 cm from the bottom of the oven and cookies were baked for 8 min at 180°C in a preheated Viking electric range Model 255N. The cookies were cooled for 30 min prior to storage in airtight plastic containers.

Sensory Evaluation. Sensory evaluations were performed by six trained panelists, five female and one male. They were selected on the basis of availability and previous sensory panel experience. Five of the panelists, three Department of Foods and Nutrition students and two University of Alberta staff members, had previously participated in several sensory studies. One panelist from off-campus had no prior experience in sensory evaluation. The panelists underwent two training sessions and one practice session wherein they were familiarized with 1) the definitions (Figure 1) for the attributes under test, 2) the extremes of hardness, crumbliness, chewiness, and moisture absorption by presenting two sample cookies per training session, and 3) the evaluation process when using the 15 cm unstructured line scale (Figure 1). All attributes, with the exception of color, were evaluated under red light in individual sensory booths in a ventilated room with a slightly positive pressure. Color was then evaluated under the MacBeth Skylight, northern daylight setting (7500°K). For each replication, the trained panelists were presented with three samples, one sample of each treatment, in random order and instructed to evaluate the cookies using the full range of the scale. Panelists were instructed to rinse well with water before and between samples and not to retaste the cookies.

Objective Evaluation. Photographs to record handling and surface characteristics were taken using a Pentax Program Plus single lens reflex camera with a 50 mm lens. The Ottawa Texture Measurement System (OTMS) (Model W63; 1U-3SG; D-1203; 1461F), equipped with the Kramer shear cell, was used to shear triplicate samples of cookies. For each treatment, two cookies were first weighed and then stacked back to back and placed horizontally in the Kramer shear cell. The OTMS was set on single cycle with downspeed at 60, upspeed at 100, top lug at 22.8 cm, and bottom lug at 15.0 cm. The range was adjusted to 20%. The maximum force was read from the strip chart recorder in kg and the force in kg/g of cookie was calculated. The

SENSORY PANEL QUESTIONNAIRE[1]

Name: ______________________ Date: ____________

Please evaluate the hardness[2], crumbliness[3], moisture absorption[4], chewiness[5], sweetness[6] and colour[7] of these samples of cookies. Make vertical lines on the horizontal line to indicate your rating of each attribute of each sample. Label each vertical line with the code number of the sample it represents. Please taste the samples in the following order:

________ ________ ________

Hardness
soft ______________________________ hard

Crumbliness
none ______________________________ much

Moisture Absorption
none ______________________________ much

Chewiness
none ______________________________ much

Sweetness
none ______________________________ much

Colour
light ______________________________ dark

1 Panelists were familiarized with the definitions but they did not appear on the questionnaire.
2 Hardness – force required to bite through sample (Civille, 1985).
3 Crumbliness – degree to which cookie fractures upon breaking.
4 Moisture Absorption – amount of saliva absorbed by the sample (Civille, 1985, F20).
5 Chewiness – degree to which mass holds together when chewing.
6 Sweetness – degree to which sugar can be detected in a sample.
7 Colour – degree to which cookie shows overall increase in browning.

Figure 1. Trained panel questionnaire employing a 15-cm unstructured line scale for the evaluation of 20, 40 and 60% Litesse® vanilla cookies.

Hunter Colour Difference Meter (HCDM) (Model D25-2) was used to measure 'L' (lightness), 'a' (redness/greenness), and 'b' (yellowness/blueness) on duplicate samples of cookies. The measurement done on the top surface of each cookie was an average of three readings on the same cookie. The cookie was rotated 90° after each reading. Differences in spread factor were calculated for the cookies by dividing width by height according to the procedures of Claughton and Pearce (1989). Width was measured by placing six cookies end to end and height by stacking the six cookies. Apparent percent moisture loss was determined based on weights before and after baking.

Consumer Evaluation. A consumer panel evaluation was conducted at Hub Mall, University of Alberta, wherein 38 subjects participated during the scheduled time. The consumers were asked to evaluate the 20 and 60% Litesse® treatments by marking their responses on an 8-point hedonic scale (Figure 2).

Statistical Analysis. The sensory and objective data were pooled for all three replications and analyzed by two-way analysis of variance (ANOVA) as outlined by Larmond (1977). Tukey's test (Larmond, 1977) was applied to identify significant ($p \leq .05$) differences among treatments. A Lotus 1-2-3 program on an IBM PC computer was used for all analyses. Regression analyses were performed on the sensory parameters of hardness and color, and the instrumental OTMS Kramer shear force and HCDM 'L' and 'a' values to determine whether linear relationships existed. The consumer acceptance data were analyzed using a paired t-test to determine if a significant ($p \leq .05$) difference existed between the two treatments.

Results and Discussion

Handling and Baked Surface Characteristics. The cookie dough showed differing characteristics during preparation. The dough with a 20% Litesse® substitution level was sticky and cohesive due to its higher margarine content. During mixing, this dough accumulated within the mixer whereas at the 40% Litesse® substitution level, the dough became crumbly and clung somewhat to the sides of the mixing bowl. At a substitution level of 60%, the dough exhibited a very fine crumb structure and appeared to be the most dry of the three treatments.

CONSUMER QUESTIONNAIRE

Name: ____________________ Sex: M F

Date: ____________________ Age: 15-24 25-34 35-44 45-54 55-64 65+

Product: ____________________

PLEASE TASTE THESE TWO SAMPLES AND
CHECK HOW MUCH YOU LIKE OR DISLIKE EACH ONE.
TASTE COOKIE # ________ FIRST, AND THEN TASTE COOKIE # ________

Code ________	Code ________
________ like extremely	________ like extremely
________ like very much	________ like very much
________ like moderately	________ like moderately
________ like slightly	________ like slightly
________ dislike slightly	________ dislike slightly
________ dislike moderately	________ dislike moderately
________ dislike very much	________ dislike very much
________ dislike extremely	________ dislike extremely

Comments:

Figure 2. Consumer evaluation questionnaire employing an 8-point hedonic scale for the evaluation of the 20 and 60% Litesse® vanilla cookies.

The 20% Litesse® dough was the softest and easiest to roll whereas the 40 and 60% treatments were more difficult to handle. After baking and cooling, differences were noted in the surface characteristics of the 20, 40, and 60% Litesse® substitution levels (Figure 3) ranging respectively from a smooth, even surface, to slight unevenness, to a cracked and uneven surface. Some shrinkage upon cooling was also observed. It is typical that as more moisture evaporates from the surface, there is increased surface cracking (Hoseney, 1986). In this study, however, the moisture loss was less for the 40

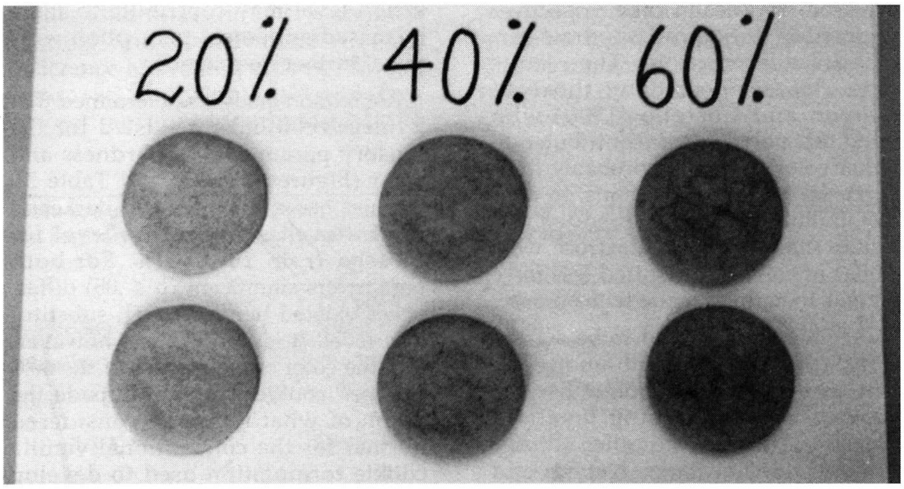


Figure 3. Surface characteristics of the baked, cooled vanilla cookies made with Litesse® substituted at 20, 40, and 60% levels for margarine.

Table 2. Mean values[a] of sensory and objective measurements following analysis of variance and multiple comparisons for vanilla cookies made with Litesse® substituted at 20, 40 and 60% levels for margarine.

	n	Substitution level (%) 20	40	60	S.E.M.[b]	Level of Significance[c]
Sensory measurements[d]:						
Hardness	17	1.9c	8.8b	13.1a	0.37	**
Crumbliness	17	6.5	8.5	9.8	1.01	ns
Moisture Absorption	17	5.9	8.6	9.4	1.10	ns
Chewiness	17	5.4b	8.2ab	9.9a	1.19	*
Sweetness	17	7.3	7.3	8.1	1.08	ns
Color	17	1.8c	8.1b	12.6a	0.40	**
Objective measurements:						
OTMS: (kg/g)	9	2.6b	3.6b	4.0a	0.18	**
HCDM:						
'L' value	6	68.7a	64.4b	62.5b	0.66	**
'a' value	6	1.2c	2.3b	3.5a	0.08	**
'b' value	6	18.7	19.5	19.8	0.30	ns
Spread factor (w/h)	6	8.4a	7.5b	7.3b	0.07	**
Moisture loss (%)	3	9.3a	8.1b	7.3b	0.22	**

[a]Means of n measurements; means in the same row with different letters are significantly ($p \leq .05$) different.
[b]Standard error of the mean.
[c]ns – not significant; *$p \leq .05$; ** $p \leq .01$.
[d]Panel scores range from 0 to 15 where 15 = the most hardness, crumbliness, moisture absorption, chewiness, sweetness and the darkest color.

and 60% Litesse® substitution levels than for the 20% level (Table 2) but a similar cracking phenomenon occurred.

Sensory Testing. Table 2 presents the results of the trained panel sensory evaluation. Significant ($p \leq .01$) differences were found for the parameters of hardness and color. These attributes intensified as levels of Litesse® increased. The present results are supported by those of Lim et al. (1989) and Neville and Setser (1986) who found that the addition of polydextrose contributed to increased hardness in shortbread cookies and increased firmness in cake respectively, possibly due to carbohydrate-carbohydrate interactions. The results were also supported by those of Stanyon and Costello (1990) who found that polydextrose contributed to darker color in biscuits probably from increased Maillard reactions. In contrast, Bullock et al. (1992) reported that cookies made with polydextrose were similar in color but required less force to break than those made with sucrose.

Chewiness was found to be significantly ($p \leq .05$) different among the three treatments. The cookies became chewier with increasing levels of Litesse®. Although no other studies reported on chewiness, Neville and Setser (1986) reported increased gumminess in layer cakes at higher levels of polydextrose. Both chewiness and gumminess attributes are related to cohesiveness (Szczesniak, 1963).

Panelists were unable to detect significant differences in crumbliness, moisture absorption, and sweetness although there was a trend towards increased crumbliness and moisture absorption at the higher levels of Litesse® substitution. The inability of the panelists to detect significant differences in sweetness concurs with the Pfizer claim that polydextrose lacks sweetness (Torres & Thomas, 1981). Nevertheless, the Maillard reaction potentiated at the 60% Litesse® substitution level may contribute to some increased sweetness perception worthy of further investigation.

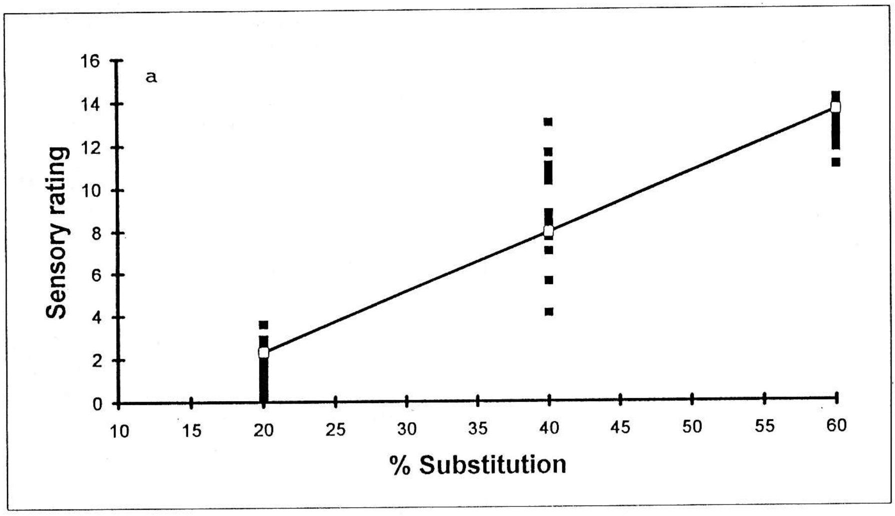
Regression analyses determined that a linear relationship existed for the sensory parameters of hardness and color (Figures 4 and 5 and Table 3). Cookies become harder and darker as the Litesse® substitution level increased from 20 to 60%. For both parameters significant ($p \leq .05$) differences existed between each substitution level. It is noteworthy, however, that the color and hardness of the 60% Litesse® cookie were not outside the realm of what might be considered normal for the conventional vanilla cookie formulation used to develop the polydextrose substitution levels for this research project.

Objective Testing. Results of objective tests are shown in Table 2. Analysis of OTMS Kramer shear force measurements showed a significant ($p \leq .01$) difference in the force required to shear the cookies. Greater force was required at higher levels of Litesse® substitution but no significant difference existed between the 40 and 60% substitution levels. HCDM results showed significant ($p \leq .01$) differences in 'L' and 'a' values but no significant differences were found for the 'b' values. Cookies exhibited decreasing 'L' values at higher levels of substitution but no significant difference existed between the 40 and 60% Litesse® substitution levels. The 'a' values showed significant differences among all levels of substitution.

Regression analysis on both OTMS Kramer shear force and HCDM 'L' and 'a' values determined that there was a linear relationship between these parameters and the level of substitution (Figures 4 and 5). The positive correlation for the 'a' value indicates an increase in redness with increasing substitution levels while the negative correlation for the 'L' value also indicates an increase in cookie darkness at higher substitution levels. This supports the sensory evaluations of hardness and color wherein panelists found that cookies became harder and darker at higher levels of Litesse® substitution. It is noteworthy that panelists, trained to detect the slightest of differences in hardness, did perceive greater variability among the treatments ($r = .947$) than did the instrumental measure ($r = .760$) (Table 3).

In addition, spread and moisture loss significantly ($p \leq .01$) differed among treatments, with both spread and moisture loss greater in the 20% Litesse® level of substitution. It would be expected that cookies with a decreased fat content would spread less (Manley, 1991). Fat melts during heating to give the dough fluidity which in turn allows it to spread as a function of gravity (Hoseney, 1986). The higher moisture retention in the 40 and 60% Litesse® cookies confirms the reported hygroscopic properties (Anonymous, 1982) of polydextrose but no significant ($p \leq .05$) differences were perceived by the trained panelists.

Consumer Testing. Figure 6 presents the results of the consumer evaluation. There was no significant ($p \leq .05$) difference in acceptability between the 20 and 60% substitution levels of



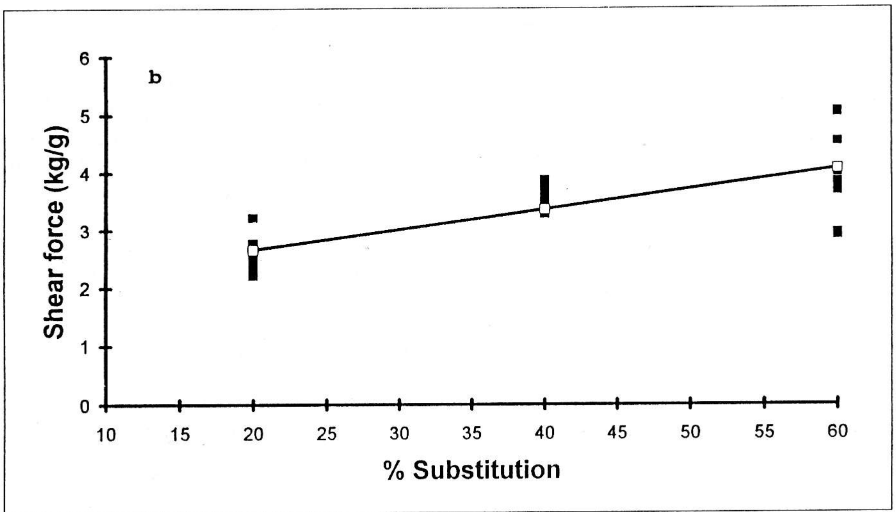


Figure 4. Best 'fit' linear regression lines for a) sensory hardness and b) Ottawa Texture Measurement System (OTMS) Kramer shear force values of Litesse® substituted vanilla cookies.

Litesse®. The mean score was 6.1 ± 0.96 for the 20% cookie and 5.7 ± 1.38 for the 60% cookie. Of the respondents, 53% marked the 20% cookie higher, 42% marked the 60% cookie higher, and 5% marked the cookies the same. Use of the 60% level of Litesse® in a formulation warrants further investigation in relation to a target market, cost, and industrial scale production of the formulation.

Summary and Conclusions

The objective of this study was to use sensory and objective methods to determine the level to which the fat in a vanilla cookie may be successfully replaced by Litesse®. Hardness, crumbliness, moisture absorption, chewiness, sweetness, and color were evaluated by six trained panelists using 15-cm unstructured line scales. Instrumentally hardness and color were measured using the Kramer shear cell on the Ottawa Texture Measurement System and the Hunter Colour Difference Meter, respectively. Spread factor (width/height) and apparent percent moisture loss during baking were also determined. A panel of 38 consumers evaluated the 20 and 60% Litesse® treatments for acceptability using an 8-point hedonic scale.

Sensory hardness, color, and chewiness increased significantly ($p \leq .01$, $p \leq .01$, and $p \leq .05$, respectively) with higher levels of Litesse® substitution. Panelists were unable to detect significant differences in crumbliness, moisture absorption, and sweetness. Instrumental findings supported the sensory results that cookies became harder and darker with increasing substitution levels of Litesse®. This would be expected in a baked product when replacing a fat with a carbohydrate which undergoes Maillard browning. A decrease in baking time and/or a reduction in oven temperature at higher levels of Litesse® substitution may optimize hardening and thickening even though neither was found objectionable by the trained and consumer panelists.

As well, cookies spread less and retained more moisture at higher levels of Litesse® substitution. Decreased spread is typical with reduced fat cookie formulation (Manley, 1991) and polydextrose did not provide the same flow properties as fat at the levels of substitution used in this study. The increased moisture retention at higher levels of substitution is consistent with the reported hygroscopic nature of polydextrose. It is interesting to note, however, that despite the claim that the hygroscopic nature of polydextrose would lead to increased tenderness and softness, the present study found that the addition of polydextrose increased hardness in the cookies, consistent with findings of Lim *et al.* (1989) and Stanyon and Costello (1990). It may be that the reported characteristics of increased tenderness and softness with the addition of polydextrose are system-specific.

Table 3. Summary of linear regression relationships of the attributes analyzed sensorially and instrumentally for the Litesse® substituted vanilla cookies.

	Attribute				
Regression	**Sensory Hardness**	**OTMS Kramer Shear Force**	**Sensory Color**	**Hunter 'a'**	**Hunter 'L'**
Intercept	-3.312	1.953	-3.312	0.0555	71.394
Slope	0.281	0.30522	0.270	0.0571	-0.155
r	0.947	0.760	0.941	0.979	0.850
n	51	27	51	18	18
p	0.0137	0.00600	0.0138	0.00294	0.0240

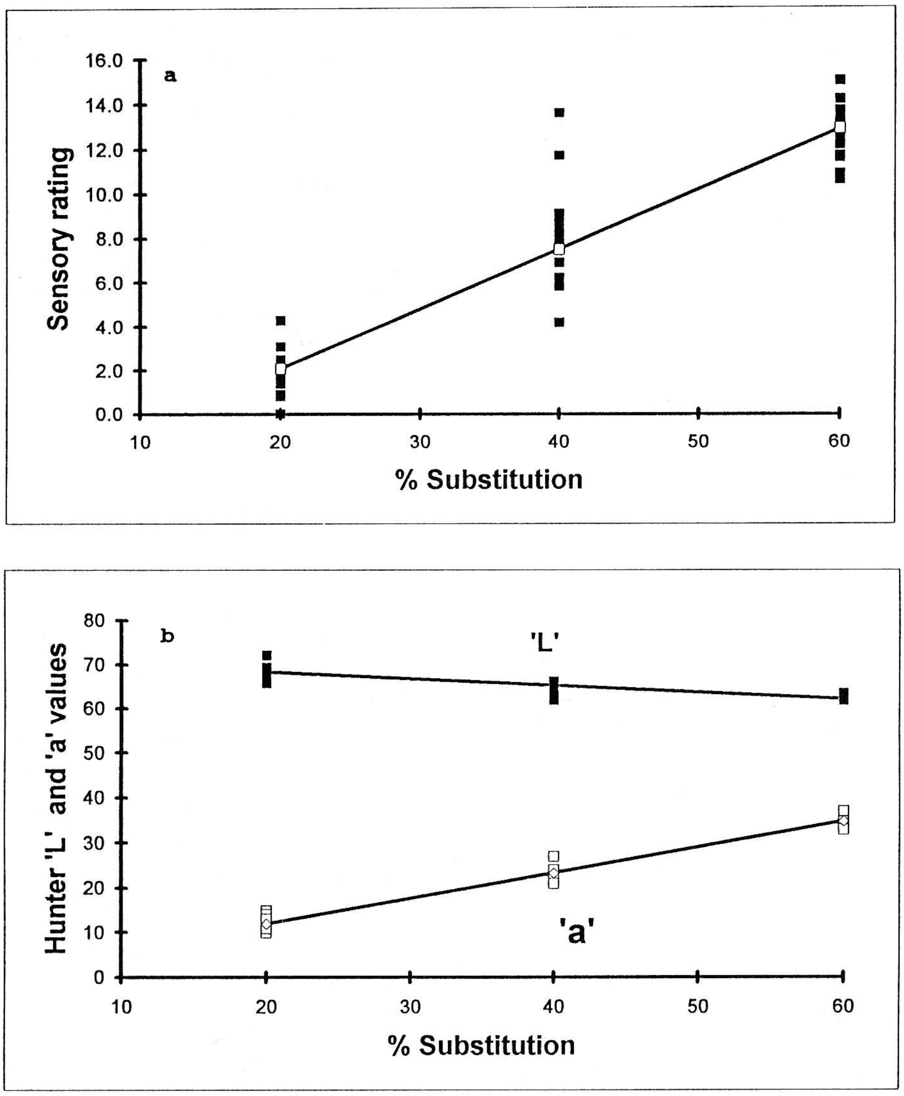


Figure 5. Best 'fit' linear regression lines for a) sensory color and b) Hunter 'a' (X 10) and 'L' values of Litesse® substituted vanilla cookies.

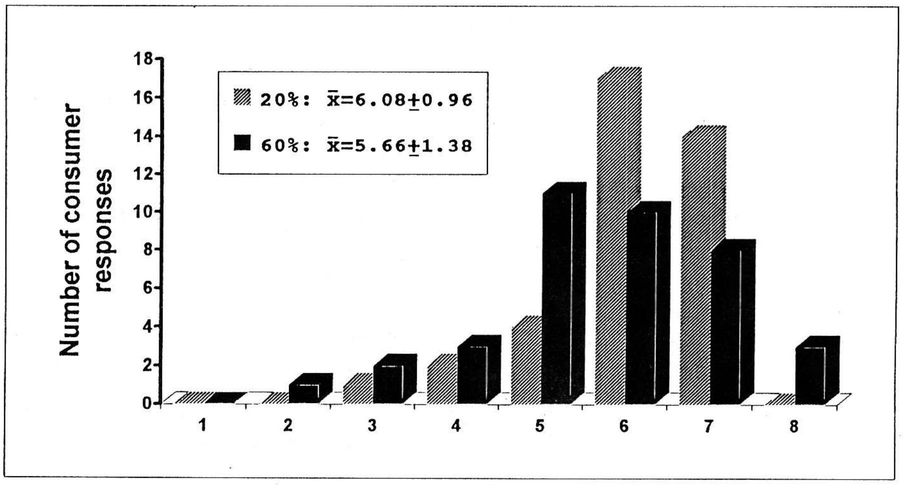


Figure 6. Frequency distribution results for the consumer hedonic scale (1=dislike extremely and 8=like extremely) evaluation of 20% and 60% Litesse® substituted vanilla cookies.

The consumer survey indicated no significant ($p \leq .05$) difference in acceptability for the cookies made with 20 and 60% substitution levels of Litesse®. Although there were some differences in the characteristics of the cookies, present results support the use of Litesse® as a replacement for fat in a vanilla cookie at a level of up to 60%. Development of other formulations that contain mono-/diglycerides and/or powdered cellulose for a per cent of the fat and flour, respectively, may compensate for some of the differences in characteristics and lead to further increases in hedonic scores.

In the present study, calories provided by fat were decreased by 50% between the 20 and 60% substitution levels of Litesse®. A further reduction in calories provided by fat would be attained in a comparison between a conventional cookie and one in which fat has been replaced by Litesse® at a level of 60%. It may be possible to use Litesse® at even higher levels of substitution than in the present study and in combination with decreased sugar content. Further research on potential side effects under these conditions would be warranted. Formulations to reduce fat may provide products permissible to be labelled with the energy claim, "calorie-reduced". □

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ANNONCE

En vue de célébrer l'Année internationale de la famille, la Revue canadienne d'économie familiale souhaite recevoir des articles qui pourraient entrer dans une section spéciale sur ce thème des numéros de 1994.

Thème	Numéro	Date limite
Familles: La scène canadienne	Hiver 1994	15 septembre 1993
Familles: Rôles et réalités	Printemps 1994	15 décembre 1993
Familles: La scène internationale	Été 1994	1er mars 1994
Familles: D'hier à aujourd'hui	Automne 1994	15 juin 1994

Abstracts of Current Literature

Clothing and Textiles

Self-consciousness and clothing purchase criteria of Korean and United States college women.

Lee, M., and Burns, L.D. (1993)
Clothing and Textiles Research Journal, 11(4), 32-40.

The three main objectives were to study: the relationship between the personal trait of self-consciousness and the importance placed on certain apparel attributes during the purchase decision process; the influence of cultural background on the importance of apparel attributes as criteria in clothing purchase decisions; and the interaction between self-consciousness and the importance of clothing purchase criteria in the Korean and United States consumer populations.

A convenience non-probability sample of 219 female clothing and textile students was drawn from a west coast university in the United States and two Korean universities. Each subject completed a self-administered questionnaire consisting of four sections: clothing purchase criteria measure, jacket and dress purchase criteria measure, Self-Consciousness Scale (Fenigstein, Scheier, & Buss, 1975), and demographic questions. The instruments were developed in English and translated by independent translators for use in Korea.

For both groups public self-consciousness was positively related to Factor 1, "Fashion and Attractiveness" with the Koreans showing a stronger correlation. The Korean students demonstrated a higher level of private self-consciousness and greater perception of importance of brand names than the U.S. females. The U.S. subjects perceived ten of the thirteen attributes as more important than the Korean students. The lowest ranked criteria for the U.S. subjects was brand name and ease of care, whereas fabric was the lowest ranked criteria for Korean subjects.

This study successfully investigated consumer characteristics of cross-cultural university students. The purchase decision occurs daily in many societies, therefore, is important to be understood by members of apparel, retail, and manufacturing industries. Some ideas for further research are discussed briefly.

Homework in apparel related industries.

Davenshary, R. (1993)
Journal of Home Economics, 85(1), 57-63.

This article investigates the social issues associated with the recent legalization of industrial homework in apparel-related industries in the United States. Industries previously prohibited from the use of homework have seen a reversal of the law in five production areas: gloves and mittens, buttons and buckles, embroideries, handkerchiefs, and segments of the jewelry trade.

The new ruling raises questions on both sides of the argument. The advocates of homework cite flexibility of the employee's hours and schedules, the benefits of no specialized wardrobe or need for transportation, and the ability to maintain family relations. The benefits to the employers include reduced overhead costs, benefit expenses (i.e., health and retirement plans), and greater productivity due to a lack of tardiness and absenteeism.

The opponents of homework fear a recreation of "sweatshops" and undesirable work conditions. Problems will occur because it is difficult to maintain a standard, to locate and identify worksites, and illegal immigrants have no recourse for nonpayments, to cite only a few. Furthermore, disruption of family life to meet deadlines, loneliness, and a perceived lack of professional respect can compound situational stress.

Homework became popular with professionals in the 1980s. Davenshary cites a study by the Link Resources Corporation (1986), however, the assessment of homework is based on a group of highly skilled and educated professionals. The author argues that the type of work and characteristics of industrial homework differs from that of professionals.

An analysis of 1980 census data provides some positive associations between poverty and homework, gender, and minority status. As the apparel industry has employed predominantly a female workforce, these associations could reveal an increased number of females falling below poverty levels.

This article, although not primary research, raises an important question. Davenshary states that "home economists are in a unique position (as professional educators) to heighten society's awareness of industrial homework as a socioeconomic issue that affects individuals and families" (p. 62).

Influence of shade depth on the effectiveness of selected ultraviolet absorbers in reducing fading.

Rich, W.M., and Crews, P.C. (1993)
Textile Research Journal, 63, 231-238.

A great deal of disagreement exists in the literature regarding the effectiveness of ultraviolet (UV) absorbers in fabric products. The UV absorbers inhibit photodegradation of polymers by slowing the molecules' activities. The most important classes of UV absorbers are hydroxy-benzophenone derivatives, benzotriazoles, and phenyl esters. The purpose of this study is to identify some of the possible causes for the conflicting reports on UV absorbers, and to demonstrate whether or not they provide sufficient benefits

to warrant their use in finishes for consumer textiles such as carpeting.

The authors used 100% nylon 6 Suberba Twistset tubular filling knit (444 g/m^2) constructed of a two-ply Anso IV bulked continuous filament carpet yarn. Nine dyes used has AATCC lightfastness ratings less than L6 on pale shades. The specimens were dyed at concentrations of 0.5% and 0.05% based on the weight of fabric for all dyes. Specimens were mounted in exposure masks and exposed to light for 160 AFUs, according to AATCC test method 16-E, colorfastness to light. The evaluation followed AATCC test method 153-1985, color measurement of textiles. The research design was a completely randomized factorial design to test the effects of dye, shade, and UV absorbers.

The results concurred with the majority of the literature in that there is not a complete simple answer. The effect of shade, treatment, and the interaction between the variables were all significant at $\propto = 0.001$ for all dyes. However, the results showed that some UV absorbers reduced color change, while others significantly increased fading or color change. The authors were unable to identify a chemical class of UV absorber which consistently reduced fading. The authors concluded that out of 122 dye/shade/UA treatment combinations only 46 dye/shade/UA treatment combinations were significantly different from their untreated controls after 160 AFUs of light exposure.

This piece of research emphasizes the need for more testing of these products to determine if they are necessary and/or effective. The authors discuss further research, as well as the effectiveness of the method used. The information obtained could be very useful to the manufacturing and interior decorating sectors of the fabric industries.

Quantitative analysis of fashion change: A critical review.

Lowe, E. (1993)
Home Economics Research Journal, 21, 280-306.

Fashion has been studied from many different disciplinary angles. In this article, Lowe reviews 70 years of research which uses quantitative methodologies to analyze fashion change. The lack of theoretical guidance in research has been a critique of most clothing research, and is pursued in this article.

Systematic review of all the studies revealed some common themes. The type of media used in different research may or may not affect the results. The difference between magazine feature articles, magazine advertisements, fashion illustrations, and photographs have not been examined. Research has focussed mainly on women's clothing, however, a broader understanding of the mechanisms of the fashion process may be aided by the examination of men's and children's fashions. Data has been collected on day dresses as well as evening dresses, and has been fairly evenly split between the two. However, further research could look closer at determining whether significant trends in features exist, and what differences may exist for both day and evening dresses. Definitive results were more likely when longer periods of time were studied versus shorter periods. Lowe suggests using time spans of a century or more to ensure reliable results. Furthermore, the author suggests a pooling of data to aid future researchers in moving into new areas for data collection, rather than re-collecting what others have collected before.

Theory has played a minor role in the research of fashion change. However, greater use of theory needs to be stressed. Lowe has provided a comprehensive review of the literature to date, with many valuable suggestions for future research. This article is a must for anyone studying fashion change through history, and perhaps beyond.

Supplementary listing of articles:

Topical treatment of weathered cottons for better processing: Part III: Initial pilot plant trials. Calamari, T.A., Ruppenicker, J.M., Jr., Hemstreet, J.M., and Perkins, H.H. (1993). *American Dyestuff Reporter, 82*(4), 26-29.

New product development: Testing the concept of customized patterns. Caldwell, L.F., and Workman, J.E. (1993). *Clothing and Textiles Research Journal, 11*(4), 1-6.

Cotton nonwovens as oil spill cleanup sorbents. Choi, H.M., Kwon, H.J., and Moreau, J.P. (1993). *Textile Research Journal, 63*, 211-218.

Demographic and lifestyle characteristics as predictors of fashion opinion leadership among mature consumers. Huddleston, P., Ford, I., and Bickle, M.C. (1993). *Clothing and Textiles Research Journal, 11*(4), 26-31.

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Family and Consumer Studies

Division of labor in two-earner homes: Task accomplishment versus household management as critical variables in perceptions about family work.

Mederer, H.J. (1993)
Journal of Marriage and the Family, 55,(1), 133-145.

It is argued that the concept of household labor is not adequately captured by simple observations about the housework tasks completed by men and women and the time spent doing them. It is proposed that household labor may be more adequately conceptualized by investigating the care of family members and this includes the caring for home, family members, and other transactional matters. This definition involves the accomplishment of household tasks as well as the quality in which they are finished. Using other measures of family work, research has consistently found that despite women's greater participation, most women do not perceive housework allocation as being unfair.

Data are based on a representative sample of American, state-employed women from a variety of job categories. All 359 respondents are married and are part of the larger Women, Work, and Family Study.

A 19-item list of household activities measured household labor and this includes the three areas pertaining to the care of family members. A set of ordinary least squares hierarchical regression equations were calculated to assess the contributions of wives' share of task and management work on their perceptions of fairness of, and reported conflict over, household labor allocation.

From this study it was found that the more housework employed, married women do, and the more time they spend doing it relative to their husbands, the more unfair

they perceive the arrangement and the more conflict about housework they report.

Stress among job insecure workers and their spouses.

Wilson, S.M., Larson, J.H. and Stone, K.L. (1993)
Family Relations, 42(1), 74-80.

It is well-documented that job-related stress is important in the lives of families today. This research examines the role of multiple variables on stress during a period of perceived job insecurity for both employees and their spouses. The effects of status, age, emotional well-being, physical health, number of marriage and family problems, and job stress on general perceived stress was investigated.

Questionnaires were completed by 111 couples working at an American university faced with budgetary cutbacks. Multiple regression analysis was used to test the hypotheses.

Along with other results, support was provided for conceptualizing the stressor of perceived job insecurity as an influential stressor for the spouse as well as for the employee who is directly touched by job insecurity.

Implications are discussed for family professionals and other practitioners.

Female labor force participation and time-saving household technology: A case study of the microwave from 1978 to 1989.

Oropesa, R.S. (1993)
Journal of Consumer Research, 19, (4) 567-579.

Women are continuously increasing their participation in the workforce. Timesaving technology has had many implications that have yet to be understood. There have been many suggestions about the effect of these technologies including: there is no effect, there may be direct or indirect effects, or direct effects can be observed over a period of time.

Hypotheses are tested using a case study of the microwave oven through cross-sectional surveys of married-couple households from the years 1978 to 1989.

Results indicate that there is strong support for the direct relationship hypothesis.

Sexual intercourse and relationship development.

Cate, R.M., Long, E., Angera, J.J., and Draper, K.K. (1993)
Family Relations, 42, (2), 158-163.

Knowing the number of people engaging and not engaging in sexual intercourse tells nothing about the role of sexual intercourse in the development of intimate relationships. This study addresses the interconnectedness of premarital sexuality and the socio-emotional aspects of relationships. This study explores the connection between having sexual intercourse with a premarital partner for the first time and the effect on the relationship thereafter.

Four hundred and forty-seven college students from a large American public university volunteered to be surveyed in a questionnaire.

Hypotheses were tested using Pearson correlations (one-tailed), and ordinary least-squares regression. Analyses were done separately for men and women.

Results indicate that several factors are related to a relationship subsequent to intercourse. To name a few, quality of the relationship as a sexual decision factor was the best predictor of positive effect on the relationship. In addition, women reported that having intercourse with their partner for the first time has a more positive effect on their relationship than it did for men. And also as hypothesized, the higher the reported guilt at having intercourse for the first time with the partner, the less positive the effect on the relationship for both men and women.

Suggestions for research on premarital sexuality are discussed as well as implications for intervention programs in family life education and high school and university human sexuality programs.

Supplementary listing of articles:

Toward a theory of agenda setting in negotiations. Balakrishnan, P.V. (Sundar), Patton, C., and Lewis, P.A. (1993). *Journal of Consumer Research, 19*(4), 637-654.

Parents as educators about war and peace. Myers-Walls, J.A., Myers-Bowman, K.S., and Pelo, A.E. (1993). *Family Relations, 42*(1), 66-73.

Family life education for the later years. Brubaker, T.H., and Roberto, K.A. (1993). *Family Relations, 42*(2), 212-221.

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Foods and Nutrition

Tracking nutrition trends: Canadian's attitudes, knowledge and behaviours regarding fat, fibre and cholesterol.

Beggs, L., Hendricks, S., Schwartz, N.B., and Biro, K. (1993)
Journal of the Canadian Dietetic Association, 54, 21-25.

This study, initiated by the National Institute of Nutrition, collected baseline information on attitudes, knowledge, and behaviors of Canadians regarding fat, fibre, and cholesterol. A survey questionnaire was developed after qualitative research to identify issues to include and terms best understood by the public. A national random sample of 1,980 adults were interviewed in their homes. The importance of nutrition and issues of concern were elicited using a five-point Likert scale. Knowledge was measured by asking subjects to classify 16 foods based on fat or fibre content and their familiarity with 15 food-related terms. Subjects were also asked to identify sources of nutrition information.

Fifty-nine percent of the sample felt nutrition was extremely or very important. Respondents stated their nutritional concerns included fat (71%), fibre (67%), and cholesterol (60%). Only 29% of those concerned said they would further reduce their fat intake. Methods stated to reduce fat included selection of lower fat products, different preparation methods, or choosing certain foods less often. Less than 20% of respondents would modify intake of fats or oils. To reduce cholesterol intake, 27% would curtail

intake of "cholesterol foods", 23% would reduce intake of eggs, and only 17% would reduce intake of higher fat foods. Of the 15 nutrition terms tested, the majority of respondents were not sure or were completely unfamiliar, and print media were the primary sources of nutrition information. Dietitian-nutritionists and physicians ranked 7th and 11th, respectively. The two most trusted sources were stated to be doctors (45%) and dietitian-nutritionists (19%), while only 5% of Canadians trusted radio and television as information sources.

These results indicated that Canadians may need assistance to recognize sources of dietary fat. Since the link between total fat intake and blood cholesterol levels was poorly understood, the total fat message needs to be reiterated. The authors stated that general messages regarding fat that consider the total health picture would best assist and motivate consumers.

The effect of alcohol on this risk of lung cancer in Uruguay.

de Stefani, E., Correa, P., Fierro, L., Fontham, E.T.H., Chen, V., and Zavala, D. (1993)
Cancer Epidemiology, Biomarkers and Prevention, 2, 21-26.

This hospital-based case-control study designed to investigate the possible contribution of alcohol consumption to the risk of lung cancer studied 327 male lung cancer cases and 350 male control subjects admitted for a variety of disorders. All subjects were interviewed by trained social workers who were blinded to the research question. The structured interview schedule gathered information concerning demographics, tobacco history, alcohol consumption history, and a food frequency. Cases and controls were similar with regard to education, income, and birthplace. The study population was predominantly of lower income and lower education level than the total Uruguayan population.

After controlling for age, residence, education level, and smoking, all types of alcohol showed significant increased risks. Beer intake revealed a higher effect with an odds ratio of 5.3 for drinkers of 60 mL or more per day. A significant dose-response pattern was detected. When consumption of a specific beverage was controlled for total alcohol intake, only beer showed a significant effect. Risk patterns were similar for squamous cell, small cell, and adenocarcinomas; though, the power to detect cell type differences was low. High risk for all types was associated with above median beer intakes. Higher risk for beer consumption was seen in subjects consuming vegetables less than three times weekly.

The study results indicated an alcohol effect on the risk of lung cancer contributed mainly by beer consumption. Risk estimates for beer were higher than those for wine, hard liquor, and total alcohol consumption. Estimates associated with beer intake showed lesser degree of correlation with tobacco smoking when compared to intakes of other types of alcohol. The authors suggested two possible mechanisms for the increased risk of lung cancer associated with alcohol consumption. The first was the metabolic activation of environmental nitrosamines by ethanol. In the second, the nitrosamine content of beer could be responsible for the increase risk. Further research is required to verify these findings and to establish the mechanism of the effect.

Intake of *trans* fatty acids and risk of coronary heart disease among women.

Willett, W.C., Stampfer, M.J., Manson, J.E., Colditz, G.A., Speizer, F.E., Rosner, B.A., Sampson, L.A., and Hennekens, C.H. (1993)
The Lancet, 341, 581-585.

Dietary data from the Nurses' Health Study were used to investigate whether a higher intake of *trans* fatty acid isomers is associated with increased risk of coronary heart disease (CHD). Using a semi-quantitative food frequency questionnaire, intake of *trans* fatty acids was calculated for 85,095 women without diagnosed CHD, stroke, diabetes, or hypercholesterolaemia. Updated disease state information was gathered by questionnaire every 2 years. Over the 8 year follow-up period, 431 cases of CHD (324 non-fatal myocardial infarctions; 107 CHD deaths) were reported. After adjusting for age and total energy intake, intake of *trans* fatty acids was associated with increased risk of CHD. From the dietary data, mean daily intake of total *trans* fatty acids was 4 g or 5.8% of dietary fat. Of this, 60% was from processed vegetable oils and 40% was from animal sources. Women who ate four or more teaspoons of margarine daily had a relative risk for CHD of 1.66 compared with women who ate margarine less than once per month. Associations were similar for tub and brick margarines. Consumption of cookies and white bread was significantly associated with higher CHD risk while intake of beef, pork, or lamb as a main dish or butter were not significantly related to risk. Authors stated that this lack of association could be due to the structural differences between the primary *trans* isomer of ruminant fat — *trans*-vaccenic acid — with a double bond in the 11 position and elaidic acid, the primary *trans* isomer of partially hydrogenated vegetable oils, with a double bond in the 9 position.

This large prospective cohort study indicated a positive link between intake of *trans* isomers of fatty acids and CHD risk which could not be explained by known CHD risk factors, multivitamin use, and intakes of saturated fat, monounsaturated fat, linoleic acid, dietary cholesterol, vitamins C and E, carotene, or fibre. The associated risk was seen with intake of partially hydrogenated vegetable oils rather than *trans* isomers from ruminant sources. The authors noted that this study did not investigate other substances found in processed vegetable oils. They stated, though, that these findings contribute to concern about the potential adverse effects of *trans* fatty acid consumption. There is a need for further metabolic and epidemiological studies to elucidate any true effects.

Feeding practices and nutrition recommendations for infants with cystic fibrosis.

Cannella, P.C., Bowser, E.K., Guyer, L.K., and Borum, P.R. (1993)
Journal of the American Dietetic Association, 93, 297-300.

This study investigated current feeding practices and nutrition recommendations of dietitians for infants with cystic fibrosis (CF). A 4-part questionnaire was developed. The first 3 sections consisted of closed-ended questions to identify infant formula and pancreatic enzyme supplement recommendations and criteria for setting energy intake goals. The fourth section determined dietitians' attitudes about current feeding practices using a five-point Likert scale. The survey was mailed to 130 dietitians in accredited CF centres in Canada and the United States. Response rate was 58%.

Protein hydrolysate infant formulas were recommended by 69% of respondents, with 24% recommending cow's milk-based formulas, and no respondents recommending soy-protein-based formulas. While only 7% recommended human milk as the feeding of choice, almost one-third indicated a willingness to work with mothers who wished to breastfeed, provided neither the health of the mother or infant would be compromised. About one-half of respondents agreed with the statement that infants with CF should receive a daily salt supplement. For energy intake goals of adequately nourished infants, 54% of respondents recommended goals of 130% of the Recommended Dietary Allowance (RDA), while 25% set goals above this level. For malnourished infants, energy intake goals of 140% RDA were used by 60% of respondents in order to promote catch-up growth. Forty-one percent of survey respondents reported concentrating infant formulas from 20 kcal/oz to 24 kcal/oz. To increase caloric density 83% used carbohydrate modules, 55% used medium-chained triglycerides, 24% used corn oil, and 13% used other oils. Thirty-five percent recommended enteral supplements with only 11% reporting they would not use these products with infants under 1 year of age due to the increased renal solute load. Food products were calorically enhanced by 81% of respondents using margarine and nonfat dry milk most often. Aggressive nutritional rehabilitation using enteral or parenteral feeding was recommended by 86% of respondents to promote growth in malnourished infants. Enteric coated microtablets or spheres of pancreatic enzymes were recommended by 76% of respondents. This study indicated that most respondents follow the guidelines established by the Cystic Fibrosis Foundation consensus report.

Fetal nutrition and cardiovascular disease in adult life.

Baker, D.J.P., Gluckman, P.D., Godfrey, K.M., Harding, J.E., Owens, J.A., and Robinson, J.S. (1993)
The Lancet, 341, 938-941.

This paper reviews effects of fetal undernutrition on disease in adult life. Several studies of men and women have shown an increased incidence of known risk factors for cardiovascular disease in those adults with slow fetal and infant growth rates. These associations occurred in full-term infants with low birthweight, those small in relation to placental size, short in relation to head size, or thin at birth, as well as those with below average infant weight gain. Poor nutrition alters the pattern of fetal and placental growth differently depending on the timing and duration.

Undernutrition in early pregnancy slows embryonic growth and may result in symmetrically small low birthweight babies. Maternal hypoglycaemia and hyperglycaemia early in embryogenesis may be associated with low birthweight. Hypoglycaemia delays embryonic growth while hyperglycaemia may retard growth and development of the blastocyst before implantation. In mid-pregnancy, the placenta grows faster than the fetus. Undernutrition may result in a larger or smaller placenta as well as change the interactions between fetus and placenta. The latter may affect distribution of nutrients to the fetus through endocrine or paracrine signals. Undernutrition in late pregnancy sacrifices fetal growth for maintenance of placental functioning. Wasting of fetal tissue may occur with amino acids being diverted to the placenta for energy production.

The authors suggested that adaptation to gestational undernutrition results in changes to fetal and placental hormone levels. In turn, permanent reprogramming occurs between glucose and insulin and between growth hormone and insulin-like growth factors (IGF). Recent findings suggested that insulin resistance and impaired beta-cell development secondary to intrauterine growth retardation may increase risk of non-insulin dependent diabetes. Insulin resistance and deficiency also are associated with cardiovascular disease in adult life, as is growth hormone deficiency. Growth hormone and IGF increase cardiac output, stimulate ventricular growth, and influence angiogenesis. IGF has strong anabolic effects on cardiac muscle.

The authors conclude that undernutrition at different stages of pregnancy leads to phenotypes characterized by low birthweight states, each associated with metabolic abnormalities in adult life. The ways in which the fetus adapts to the undernutrition result in its survival yet, alter its physiology, structure, and metabolism in such a way as to increase incidence of cardiovascular disease later in life.

Supplementary listing of articles:

Relationship between nutrition, weight change, and fluid compartments in preterm infants during the first week of life. Heimler, R., Doumas, B.T., Jendrzejczak, B.M., Nemeth, P.B., Hoffman, R.G., and Nelin, L.D. (1993). *Journal of Pediatrics*, 122, 110-114.

Is dilution of cows' milk formula necessary for dietary management of acute diarrhoea in infants aged less than 6 months? Chew, F., Penna, F.J., Peret Filho, L.A., Quan, C., Lopes, M.C., Mota, J.A.C., and Fontaine, O. (1993). *The Lancet*, 341, 194-197.

Women and obesity. Learning to live with it. Ciliska, D. (1993). *Canadian Family Physician*, 39, 145-152.

Fat and female fecundity: Prospective study of effect of body fat distribution on conception rates. Zaadstra, B.M., Seidell, J.C., Van Noord, P.A.H., te Velde, E.R., Habbema, J.D.F., Vrieswijk, B., and Karbaat, J. (1993). *British Medical Journal*, 306, 484-487.

Physiologic control of food intake by neural and chemical mechanisms. Norton, P., Falciglia, G., and Gist, D. (1993). *Journal of the American Dietetic Association*, 93, 450-454, 457.

Position of The American Dietetic Association: Promotion and support of breast-feeding. Newman, V. (1993). *Journal of the American Dietetic Association*, 93, 467-469.

Submitted by:
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New Developments

Compiled by Brenda White

... In Resources

1993 Directory of National Organizations and Associations Involved in Health Promotion

This sixth edition of the popular directory is designed to provide readers with the most comprehensive compendium of national organizations and associations involved in health promotion in Canada. This 8-page publication is available at no charge.

To obtain: Contact Health Promotion Directorate, Health Canada, Ottawa, Ontario, K1A 1B4.

1993 Directory of Substance Abuse Organizations

This excellent reference tool for health professionals and researchers is fully indexed, with 2000 entries for federal, provincial and territorial agencies, and Native groups. Published by the Canadian Centre on Substance Abuse, it costs $44.95 plus GST.

To order: Write to CCSA Books, 112 Kent Street, Suite 480, Ottawa, Ontario, K1P 5P2.

Quit 4 Life

It is a self-help quit smoking program designed for teenagers. It provides tips and techniques for smokers who are already motivated to quit. The positive, supportive, and realistic content covers all stages of quitting; getting ready mentally; preparing for the quit day; quitting, and staying smoke free. Health professionals and teenage smokers were involved in the development of this resource.

Information about the kit will be promoted through the media, in schools, physicians' offices, pharmacies, by Lung Associations, and other health professionals across Canada.

Interested teen smokers can get a free kit by calling 1-800-363-3537.

For more information: Contact Tobacco Programs Unit, Health Promotion Directorate, Health and Welfare Canada, Ottawa, Ontario, K1A 1B4.

Nutrition Education Resource for People with HIV

Healthy Eating Makes A Difference is a kit containing a 40-minute video and a 200-page book. Available in French and English, it presents a guide to healthy eating for maintaining and improving the quality of life of individuals living with HIV. This is the result of a joint venture of the Canadian Hemophilia Society and Health Canada, along with other national groups.

The kit available at no charge from community health centres, community AIDS groups, Canadian Hemophilia Society Chapters, and the National AIDS Clearinghouse.

Source: Press Release, Canadian Hemophilia Society, April 1993.

Safer Communities

This 55-page report explains the meaning of crime prevention through social development, and explores the evolution of the safer community strategy, as well as recent trends in its application. It will be useful to any individual, community leader, or a member of a government who is interested in developing a more comprehensive, community-based approach to crime prevention. Its cost is $6.00.

To order: Write to Canadian Council on Social Development, 55 Parkdale Avenue, Ottawa, Ontario, K1Y 4G1.

Active Living in the Workplace

Active Living in the Workplace: A Policy Approach is a 16-page booklet intended to help organizations in moving through the policy building process. It includes information on starting out, crafting a policy statement, evaluating success, and much more. It also offers "how to's", tips, and suggestions for helping ensure long-term organizational commitment to active living. Single copies are available free of charge in English and French.

To obtain: Write to Canadian Centre for Active Living in the Workplace, 1600 James Naismith Drive, Suite 312, Gloucester, Ontario, K1B 5N4.

The Less Challenging Home

From Whirlpool Corporation, a 24-page publication called *The Less Challenging Home* is available. It offers a step-by-step description of how to build a functional kitchen that everyone can use. Copies are available at no charge.

To obtain: Write to Whirlpool Corporation – Appliance Information Service, P.O. Box 405, St. Joseph, Michigan, USA, 49085.

Tax Facts: What Every Woman Should Know

This practical and easy-to-read booklet explains why tax is a women's issue. In its 27 pages, a variety of subjects are covered, including consumption and income taxes, pension plan, and RRSPs, child care expenses, child support payments, and the treatment of marriage in the tax system. It is available free of charge.

To obtain: Write to Canadian Advisory Council on the Status of Women, P.O. Box 1541, Station B, 110 O'Connor Street, 9th Floor, Ottawa, Ontario, K1P 5R5.

Sexual Harrassment Fact Sheet

This fact sheet discusses the various forms sexual harassment can take, how it operates in combination with other factors, and its consequences for women. It examines what one can do if one is sexually harassed. This fact sheet is free of charge.

To obtain: Write to Canadian Advisory Council on the Status of Women, P.O. Box 1541, Station B, 110 O'Connor Street, 9th Floor, Ottawa, Ontario, K1P 5R5.

Myths and Malnutrition: A Growing Problem

This summary of clinical papers and recent studies is written for any professional involved in the growth, development, and nutritional status of children. It addresses the nutritional inadequacy of many of our Canadian children, some reasons for these, and some serious health consequences. Copies are available at no charge.

To obtain: Write to Dairy Bureau of Canada, Suite 1330, 1981 McGill College Avenue, Montreal, Quebec, H3A 2X9.

Inventory of Nutritional Analysis Laboratories

Agriculture Canada has prepared a list of Canadian laboratories that conduct nutritional analysis of foods. It will be useful to those seeking assistance in determining the nutrient content of their foods for nutrition labelling or other purposes.

For more information: Contact Food Industry Development Division, Agriculture Canada, 553-930 Carling Avenue, Ottawa, Ontario, K1A 0C5.

Canadian Pennypincher News

This 8-page monthly newsletter attempts to share practical information in these recessionary times, to increase awareness about runaway consumerism, and to promote the responsible use of resources. A one year subscription costs $16.75 (including GST). A free sample issue can be obtained by sending a self-addressed, stamped business size envelope.

To obtain: Write to *Canadian Pennypincher News*, P.O. Box 7, Boulter, Ontario, K0L 1G0.

New National Occupational Classification

The new National Occupational Classification (NOC) has officially replaced the 20-year old Canadian Classification and Dictionary of Occupations (CCDO). It will be useful for applications in labor market analysis, human resource planning, immigration, employment equity, and career counselling. Unlike its predecessor, this new version is able to identify future technological and structural changes in occupations as they happen in addition to citing the education and training each occupation requires.

For more information: Write to Employment and Immigration Canada, 140 Promenade du Portage, Hull, Quebec, K1A 0J9.

Moving to Live/L'activité c'est la vie

This 40-minute video teaches seniors how to assume control over their lives and improve their sense of well-being by improving overall flexibility. The video can be used by seniors at home, or as a teaching tool by fitness leaders or health professionals in an office setting. All exercises can be done at once or they can be broken down into three 12-minute sessions. Accompanying the video is a colorful poster which illustrates each stretch in the series. It is available in both English and French at a cost of $19.95 plus GST.

To obtain an order form: Contact Canadian Public Health Association, 1565 Carling Avenue, Suite 400, Ottawa, Ontario, K1Z 8R1.

Ordered Nov 5/93.

Stretch Your Food Dollar

This resource, designed to be used with those people having low literacy skills or short attention spans, has three parts: slides (61), script, and activity/information sheets. It deals with the planning, shopping, and preparing of healthy meals on a limited budget. The cost is $160.00 (includes shipping and handling) and a preview package is available upon request.

To order: Contact Nutrition Division, Elgin-St. Thomas Health Unit, 99 Edward Street, St. Thomas, Ontario, N5P 1Y8.

Directory to Funding Sources for Canadian Studies

Recently updated by the Canadian Studies and Special Projects Directorate of the Department of the Secretary of State, this free publication lists sources of public and private funding for Canadian studies. It would be useful to anyone wishing to obtain financial assistance for a project.

To obtain: Contact Department of the Secretary of State of Canada, Canadian Studies and Special Projects Directorate, Ottawa, Ontario, K1A 0M5.

Fat Labelling

A video and proceedings of the Fat Labelling: Scientific Basis and Consumer Education Seminar held on June 2, 1993 in Toronto is available at no charge. Five speakers addressed such issues as current and proposed fat labelling in Canada, dietary fat and high blood cholesterol, and consumer knowledge and education needs.

To obtain: Write to Becel Heart Health Information Bureau, P.O. Box 5105, St. Laurent Postal Station, St. Laurent, Quebec, H4L 4Z7.

Barbecue Syndrome

This fact sheet is one in the "Issues series" and addresses the type of food poisoning caused by the E. coli bacteria and commonly referred to as hamburger disease or barbecue syndrome. It is available in English and French at no charge.

To obtain: Write to Health Protection Branch, Health Canada, Ottawa, Ontario, K1A 1B4.

Northern Food, Tradition, and Health Resource Kit

A Northern Food, Tradition and Health resource kit has been developed for use across the Northwest Territories to encourage northern people to choose traditional foods for health and well-being. The kit consists of 91 traditional food models with a strong envelope and a resource booklet that includes background information, activity ideas for different age levels, and worksheets to help teach the concepts of nutrition in a northern context. The kit is available to individuals or organizations, outside the NWT, at a cost of $75.00.

To obtain: Contact The Distribution Centre, Department of Culture and Communications, Box 1320, Yellowknife, NT X1A 2L9.

... In Ideas

Comprehensive School Health

The Canadian Association for School Health and Health Canada has embarked on a plan to promote a shift to a more wholistic approach in school-based health programming. It recognizes that students' health-related behaviors change and are maintained when health instruction is accompanied by skills training, parental and peer support, and ongoing reinforcement of the desired behavior change,

including environmental change in schools, families, and communities.

This new approach's main elements include:

- well planned, sequential instruction backed by adequate teacher preparation and relevant teaching/learning materials.
- health and social support services.
- a healthful physical environment.

The adoption of comprehensive school health programs has been slow to date in Canada. This new marketing plan is intended to accelerate the introduction of such programming. Its promotional elements will include: exhibits, workshops, articles, a school award program, and a promotional kit (including a video, implementation guide, and information sheets).

For more information: Contact Education and Training Unit, Health Promotion Directorate, Health Canada, Ottawa, Ontario, K1A 1B4.

The "Push" and "Pull" of Marketing

In marketing, there are two basic strategies: the push and pull. The push strategy is aimed at "resellers", those who promote or distribute the information (i.e. policy makers, professionals). The pull strategy is aimed directly at the public, those who will benefit from the information. When combined, these strategies have a synergistic effect.

While the push strategy is commonly used, the pull strategy, the targeting of information directly to specific segments of the population to stimulate a demand for policy and program change, is not as popular. Consider using both strategies in your next marketing endeavor.

Source: *Wellspring newsletter*, Alberta Center For Well-Being, Spring 1993.

Action on Violence Against Women Project

Violence against women takes many forms, and community resources to end it vary widely across the country. The Community Action on Violence Against Women Project is a national initiative that seeks to build effective partnerships among communities and to develop resources and strategies to end violence in women's lives.

Sponsored by the YWCA and funded by Health Canada, the three year, $1 million initiative is designed to provide examples of intersectoral and community-based partnership models for program delivery, and to produce resources promoting the message that violence against women is unacceptable. One of the guiding principles is the YWCA's commitment to be aware of and respect the diversity of communities.

Some initiatives to date include: the development of two brochures (Making Our Communities Safe for Women and Stop Violence Against Women), the piloting of three different models of community response to woman abuse, the development of an information kit for rural, northern, and remote communities, and the development of a media plan.

For more information: Contact Community Action on Violence Against Women, YWCA of Canada, 80 Gerrard Street East, Toronto, Ontario, M5B 1G6.

Vision of Health for Children and Youth

The framework upon which to address child health challenges is laid out in the document called "A Vision of Health for Children and Youth in Canada". It envisages a Canada "in which the health and well-being of all children and youth are safeguarded and promoted, a country where children and youth are empowered to achieve their full physical, mental, social and emotional potential through safe, non-violent, nurturing surroundings, adequate housing and food, exposure to life-long learning activities, equitable opportunities to grow and develop, and a valued place in the family and community."

The six child health goals are as follows:

- Enhance the strengths and involvement of children and youth in creating, maintaining, and improving their own health.
- Ensure that all children and youth have access to the necessary living conditions required for optimal growth and health.
- Promote healthy behaviors and reduce the incidence of preventable deaths, disability, injury, and illness.
- Foster strong and supportive families, caregivers, and communities.
- Ensure a safe, sustainable high-quality physical environment for all children and youth.
- Provide a comprehensive, cost-effective network of policies, programs, and services for all children, youth, and families, one that stresses health promotion, prevention, protection, and care.

These broad goals begin the process to achieve the vision. It now allows for the development of workable objectives and targets, making a plan of action possible.

For more information: Contact Child and Family Health Unit, Health Canada, Ottawa, Ontario, K1A 1B4.

Skills Employers are Looking For

The findings in a report by the Corporate Council on Education indicate that today's employers are looking for people who can communicate, think, and continue to learn throughout their lives; demonstrate positive attitudes and behaviors, responsibility and adaptability; and work with others. The report entitled "Employability Skills Profile" summarizes the discussions of senior executives of corporations across Canada.

Source: *Profit: A Newsletter for Small and Medium-Sized Businesses*, Spring 1993.

Managing Your Boss

Recent studies suggest that effective managers take time and effort to manage not only relationships with their subordinates but also those with their bosses. By managing your boss, you will achieve the best possible results for you, your boss, and the company.

A checklist for managing your boss:

- Make sure you understand your boss and his or her context, including goals and objectives; pressures, strengths, weaknesses, and blind spots; and preferred work style.
- Assess yourself and your needs, including strengths and weaknesses; personal style; and predisposition toward dependence on authority figures.
- Develop and maintain a relationship that fits both your needs and styles; is characterized by mutual expectations;

keeps your boss informed; is based on dependability and honesty; and selectively uses your boss's time and resources.

Source: *Harvard Business Review*, May / June 1993.

industrial model. Needless to say, only a limited number of dealers in Japan are stocking these!

Source: *Inter Connect*, Vol. 5, No. 4, March / April 1993.

... In Products

Brown in the Microwave

Micro-Cuisine is a new accessory to use inside the microwave oven to brown and crisp foods and comes closer to producing the quality of conventional cooking than any other product available to date, according to an evaluation done by *The Microwave Times* newsletter.

The unit converts microwave energy into dry heat energy, allowing foods to brown and crisp. Temperatures of up to 200°C (400°F) are reached in minutes. A battery operated fan in the top allows moisture and hot air to escape. The batteries require recharging after 90 minutes of use.

This thermoplastic pot with lid holds as much food as a medium sized saucepan and costs about $100.00.

Souce: *Inter Connect Newsletter*, City of Calgary Electric System, Vol. 5, No. 5, May / June 1993.

Environmentally Friendly Paint

Solvent-free paints which do not contribute to air pollution and which have the added benefit of being virtually odor-free are now available. Although these paints cannot be tinted yet, as the addition of tints also adds solvents, you can still find a colorful selection in major home improvement and paint stores.

Source: *In Our Backyard Newsletter*, Alberta Special Waste Management Corporation, Vol. 4, No. 2, Spring 1993.

New Fusible Interfacings

One would think that fusible interfacings would be a perfect match for the current crop of fabrics from the chemists' labs — the microfibres, ultralight polyesters, and faux suedes since fusibles are almost all synthetic too. But there is one problem — the heat needed to apply most fusibles is often enough to damage these heat-sensitive fabrics. Thus, new adhesives have been developed that work at lower, safer "silk" temperatures, rather than the "wool" setting that earlier fusibles required. *Soft 'n Silky* and *Cool Fuse* are two brand names now available.

Source: *Threads Magazine*, February / March 1993.

Microwave Garbage Disposal

A Japanese manufacturer has developed a microwave garbage disposal that dries garbage and reduces it to a pile of ash 1 / 300 of its original weight. The cycle takes about 4 hours for a one kilogram (2.2 pound) load of garbage. The disposal costs $3,830 for a residental unit and $50,000 for an

... In Trends

Protective Clothing Trends

It is predicted that the market for top quality protective clothing will expand further in the future. More specifically, there will be an increased need for clothing that is resistant to high temperatures, clothing that protects the wearer against hazardous materials, and clothing that protects against mechanical action. A trend can be seen for increased safety and wearer comfort.

Amongst the newest developments are the new or modified air-permeable wet-barrier systems. Improving the properties of the membranes or coatings has resulted in better protective clothing for outside work.

New horizons are being opened up by fabrics made of plastic-sheathed yarns, now at the development stage. This method makes it possible to achieve extremely high levels of impermeability, being of particular interest to the hazardous materials industry. If required, the material can be provided with special additives, for instance, against radiation. Apart from this, look for an electrician's protective suit with air-permeable insulation, an alternative to the customary rubber clothing.

A new fibre heating system is being tested. It has possibilities in the manufacture of cold-resistant clothing. The heating elements of this sytem consist of modified acrylic fibres that are capable of conducting electricity. Heat is created by means of a weak current. This clothing is suitable for use in temperatures down to minus 30 degrees.

Source: *Laundry and Cleaning News International*, April 1993.

Netiquette

Since electronic mail (e-mail) is replacing a voice connection in the workplace, complications arise because intonation is lost.

That is where network protocol, dubbed by some as "netiquette" comes in, offering these tips:

- Re-read (and if necessary, rewrite) your message before sending it out.
- Keep paragraphs short and to the point.
- Focus on one subject per message.
- Be professional about what you say about others as e-mail is easily forwarded.
- Be careful when using sarcasm and humor. Without face-to-face communication, your joke may be viewed as criticism.

Source: *Business Access Newsletter*, Vol. 4, No. 1, Summer 1993.

Book Reviews

Linda West

If you are interested in reviewing a book, please contact the Book Review Editor, stating your area of interest. A complimentary book which may be kept will be sent to you for review.

Book Review Editor

Debbie MacLellan
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Guide To Good Food by Velda L. Largen and Deborah L. Bence. (1992). South Holland, IL: The Goodheart-Willcox Company, Inc., 735 pages; $49.95.

Easy-to-read and understand, *Guide To Good Food* is intended to provide the reader with information about food and nutrition. Interest is created by the use of numerous full color pictures and illustrations of various foods and techniques throughout the book.

This text is divided into 4 parts. Part one (chapters 1-6) addresses the topics of how food affects life, nutrition, safety and sanitation, and career opportunities. Part two (chapters 7-12) deals with kitchen planning, appliances and equipment, consumerism, and planning meals. Part three (chapters 13-25) focusses on the preparation principles of specific foods. These chapters include recipes for each specific group of foods covered. Part four (chapters 26-31) presents foods of the world.

Learning objectives at the beginning of each chapter will help the reader key in on important points. Concluding each chapter is a list of terms, review questions, and a number of "hands-on" application activities.

This text is supplemented with featured articles on various topics including global issues and trends and technology in the food industry. Dietary charts, nutritive values of common foods, measuring information, and a glossary is also included at the end of the book.

The textbook, although published in the United States, can be used successfully in our Canadian high school classrooms. Supplementary materials could be substituted in the following areas: Canada's Food Guide, Canadian dietary guidelines, safety seals of approval, labelling standards, sources of consumer information, and grading and inspection of beef, poultry, fish, and eggs. In most areas the book does make reference to metric standards of measurement. Having used the 1988 edition of this textbook, along with the student activity guide, I would recommend *Guide To Good Food* as a good high school textbook.

Reviewed by:

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Home Economics Teacher
Lethbridge, Alberta

Getting It Together – How To Organize Your Work, Your Home and Yourself by Patricia Katz. (1992). Regina, SK: Centax Books. A Division of M.C. Graphics Inc., 126 pages; $11.95.

Getting It Together is an excellent resource for people wanting to put a little organization into their lives. Patricia Katz has a flair for presenting practical solutions in an enjoyable, easy-to-read manner.

A wide variety of common organizational headaches are addressed – from time management and desktop order to cures for morning madness and choretime. Theoretical viewpoints take a backseat. Instead, each selection is jam-packed with innovative, workable ideas. The down-to-earth tips are offered with simplicity in mind, and accompanied by a sense of humor.

The book itself is well-organized. Fifteen topics are further broken down to target specific problem areas. A real time saver, it allows the reader to flip to any item of choice as each topic is covered within a two-page spread and is an article unto itself. One does not have to read the book from cover to cover before reaping the benefits of the author's wisdom. As a further aid to identifying helpful hints, a simple list of code symbols is used in the table of contents, indicating which areas are suitable for home, work, community, and/or personal organization. These symbols are also found throughout the book. Whimsical sketches and quotes dress up the text providing visual enjoyment. An extensive list of suggested readings included at the end of the book is an added bonus.

Need to "get it together"? This book is a great place to begin.

Reviewed by:

Leah Boulet, PHEc
St. Georges, Manitoba

ON COMMON GROUND Managing Human-Planet Relationships by Ranjit Kumar and Barbara Murck. (1992). Rexdale, ON: John Wiley & Sons Canada Limited, 216 pages; $24.95.

The authors have written this book as part of PROJECT LEARNING, an initiative that provides training materials for policy makers and planners faced with the challenge of incorporating environmental imperatives into their decision making processes. However, the information has been presented in such a format as to be suitable for high school classroom use, both in Canada and in developing countries.

The authors are not redefining sustainable development, but rather are presenting a broader visual that involves the building of sustainable futures for those currently utilizing the earth's resources, as well as for the generations to come. They identify the following four steps that must be taken to meet the challenge of implementing development that is consistent with healthy human-planet relationships: a)

making a commitment to embrace a new vision; b) developing a framework within which we can learn how to think about the environment and human-plant relationships; c) informing ourselves about our relationship to the workings of Earth systems; and d) integrating this new perspective into our lives and the way we make decisions. The book's overall structure reflects these steps.

The book concentrates on issues of current global environmental concern, including dynamics of the planet, watersheds, natural vegetation, soil quality and agriculture, human settlements and urbanization, atmosphere and climate, oceans and coastal zones, and earth materials, energy, and waste. Following each section is an overview of the system, together with a discussion of conspicuous problems, and several examples highlighted in colored boxes. A list of critical issues in the form of questions intended to stimulate thought, discussion, and action also accompanies each section.

The final chapter looks at the human dimension of creating sustainable futures, with the authors outlining the evolving responsibilities of government, and stressing the importance of co-participants, or participatory aspects of effective governance.

Reviewed by:

Sharon Channer, BHSc, MSc
Consultant, International Development

Food Irradiation. A Canadian Folly by Karen M. Graham. (1992). Portage la Prairie, MB; Paper Birch Publishing, 228 pages; $19.95 (including GST and postage).

Having chaired the Canadian Dietetic Association's Ad Hoc Committee on Food Irradiation, Karen Graham writes about the process and the politics of food irradiation from an insightful and uniquely Canadian perspective. This heavily referenced research manuscript refutes the concept that irradiation is a viable method of food perservation. Graham discusses the impact of irradiation on the chemical composition of food, the nutritional implications of consuming irradiated food, and the risks associated with the irradiation industry. Information regarding alternatives to food irradiation, economic considerations, and Canadian food irradiation legislation is also provided. Written in this scholarly format, the book is intended for use by professionals, students, or consumers who desire a more in-depth look at food irradiation. Full explanation of the terminology used is provided along with detailed background information in the appendices.

As evidenced by the title, Graham's opposition to food irradiation is clear. Readers wishing to develop their own opinion through an unbiased overview of available research into the effects of irradiation on food quality and toxicity will require further reading. Research which does not support Graham's views is often dismissed as invalid or given disproportionate consideration relative to the research which supports her thesis.

Irradiation technology does not exist in a vacuum, but must be evaluated in context of the nuclear industry, about which few Canadian are without opinions. When the question is addressed: "Would food irradiation be financially viable if the nuclear industry was not heavily subsidized by the Canadian taxpayer?", Graham's argument against this technology is undeniable. This book reveals dubious political and economic rationale behind the promotion of food irradiation by the struggling Canadian nuclear industry. In the concluding chapter, Graham recommends that food irradiation and supporting research be halted. For those who concur with this recommendation and wish to take further action, addresses of appropriate consumer advocate groups and government offices are provided.

Reviewed by:

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Edmonton

Cook's Healthy Handbook – Good Nutrition and Safety in Your Kitchen by Karen Eich Drummond, Joseph F. Vastano, and Josephine C. Vastano. (1992). Toronto, ON: John Wiley & Sons, Inc., 315 pages; $39.95.

The cover of *Cook's Healthy Handbook* promises information to "modify recipes to enhance nutrition, eat less fat and cholesterol, prevent disease through foods, make your kitchen safe – and more". In truth, it is more like a textbook which could have some value in the classroom.

The first 50 pages cover basic nutrition with emphasis on carbohydrates and fat. Recommendations are given on sugar, starch, fibre, fat, and cholesterol consumption. The next 50 pages cover supermarket smarts, kitchen basics, food safety, and choosing cookware and dinnerware. The food labelling information is mostly American regulations but interesting reading. The food safety section includes storage guidelines as well as information in food borne illnesses.

The majority of the book covers basic information on the purchasing, storage, and preparation of meats, dairy products, fruits, vegetables, grains, desserts, and baked goods. Recipes are also included. Although most chapters include a section on tips for cooking light and healthy, the information is sketchy. Some sections such as dairy contain good tips such as substituting yogurt for sour cream. Other sections only include basic cooking tips such as avoiding over cooking fish and soaking beans before cooking. This sections does contain many informational charts as well as information on less known products like quinoa and surimi.

At times the book is contradictory. The chapter on carbohydrates recommends using sugar substitutes in beverages and other foods. Later the section on additives states that aspartame and saccharin are among the additives that are not safe and should be avoided.

The safety section on eggs states that you should avoid eating soft or medium eggs. The next pages gives directions for making soft boiled eggs. Two different sections recommend a French toast recipe with bananas and skim milk instead of eggs but the recipe given includes eggs as well as banana and milk.

The book is geared to a grade 9 to 12 level. Recipes use imperial measurements only and the recommended dietary allowances are American.

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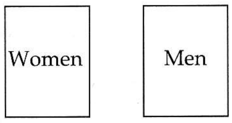
Practising Home Economics – With Confidence

Shirley Rebus

As a profession, home economics has long been plagued by two realities – its practitioners are almost exclusively female, and the field of practice deals with subject matter that has generally been considered "women's work". In a world that views such work as having only marginal value, home economists are in a weak position when they want to be heard.

At the AHEA conference in April of 1993, Dr. Sheilah Martin, Dean of Law at the University of Calgary, urged us to speak up, speak out, and speak often. Important as this might be, how do we find the courage and confidence to do it?

The feminist movement has tried, unsuccessfully, to make men respect women and what they have to say. But there is a fundamental weakness in the feminist philosphy – it divides the work into two camps, women and men, and assumes that when one rises to prominence, it must be at the expense of the other. When represented graphically, the world under feminism appears to me as two separate blocks, each trying to better the other. And on those occasions when equality is achieved, it is difficult to maintain and often deteriorates into power struggles and name calling. This is perfectly understandable. The dynamics of such a system cannot work because there is no connection between its parts.

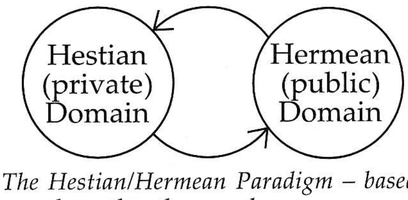


The Feminist Paradigm – equal and separate parts

Recently, Dr. Patricia Thompson has published and spoken about an alternate view – her Hestian/Hermean paradigm[1]. It presents another way of looking at what people have to contribute to the world – not according to gender, but based on the roles they fulfill. It recognizes that there are both private and public spheres of influence and activity, and that both are of equal value in creating healthy and fully-functioning people. It allows for men to be comfortable working in the private sphere, and women to function happily in the public sphere.

According to Dr. Thompson, the public sphere of influence (which she refers to as the public domain) is the audible, visible system of human action, involving activities related to business and governing. It is based on patriarchal values and operates under a philosophy of competition and control in order to accomplish its goals. It assumes that people are motivated by extrinsic punishment and rewards, and is formal and abstract.

Until now, the public domain has been prominent. Is it any wonder, then, that home economics and its practitioners have not felt in tune with, or been understood by, those in power? The profession of home economics concerns itself not with the public domain, but with the other sphere of influence and action – the private domain. This is the invisible, inaudible, and largely undervalued aspect of life which is based on humanistic rather than patriarchal values. It operates from a belief in connection and co-operation rather than control. It recognizes the power of intrinsic (rather than extrinsic) motivation and reward. The private domain is the warm, nurturing world of home and family.



The Hestian/Hermean Paradigm – based on roles rather than gender; some connection

I found that Dr. Thomspon's model put into perspective things I had intuitively known, but was unable to articulate. However, the domains are represented as separate circles which have only minimal interaction and, for me, it still does not create the integrated worldview which I believe is essential.

What is missing is balance and wholeness. In my mind, this paradigm needs to be taken one step further. Envision, if you will, the interrelationship of the public and private domains represented by the ancient Chinese model of yin and yang, which recognizes two equally important components flowing together in balance. The result is a healthy, integrated whole which equally values the public and private domains. It acknowledges the

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[1]Outlined in detail in her two books: *Home Economics and Feminism: The Hestian Synthesis* and *Bringing Feminism Home: Home Economics and the Hestian Connection*, both published by the Home Economics Publishing Collective, University of Prince Edward Island.

importance of those working in each area – not for their gender, but because of what they do and the contributions they made to human well-being.

Private Domain

Public Domain

One step further – to integration and wholeness

Understanding people's roles in terms of the private and public domains, and envisioning them in the context of a balanced whole, has given me confidence to speak out, knowing that what I have to say, and the domain for which I speak, has a valid place in the kind of world in which I want to live.

I now realize that I work in a domain whose philosphy and methods are different from the predominant one. Not wrong, and certainly no less effective or important than those of the public domain – simply different.

The world needs all of us, and the unique contributions we have to make. This is especially true in these times when conditions are changing rapidly and there is a need for balance to return in the world. We can help by practising the wholeness of our profession without apology. By keeping the human element, the private domain, in the forefront of what we do, we are helping to create desperately-needed balance and integration.

This is an exciting time to be a home economist. The time is coming when many people will be wanting and needing to know what we know and we will be able to help them because of our long-standing tradition of working with homes and families.

In the meantime, we need not use a lot of our energy telling people how wonderful and important we are. We simply need to do what we do best – encouraging nurturance, and teaching life skills – utilizing our expertise in the areas of food, clothing, shelter, resource management, and human relationships as "the way in". And when we *are* who we really *can be*, people will learn a lot more from home economists than the technical aspects of food, clothing, shelter, resource management, and human relationships!

As home economists, we can make our best contributions by *doing* – and that, in the end, will speak volumes. □

Index to Volume 43

Winter 1993 to Fall 1993

ARTICLES
LES ARTICLES

Authors

Capjack, Linda. *New Insights into Teaching Apparel Design*. Summer, 96-98.

Capjack, Linda. (See Wrobel, Kim)

Collard, Agathe Gagné. *Découvrir le plaisir d'enseigner dans la recherche de l'efficacite et de l'excellence*. Winter, 17-19.

Collard, Agathe Gagné. *Discovering the Pleasure of Teaching While Striving for Effectiveness and Excellence*. Spring, 52-55.

Collard, Agathe Gagné. *Découvir le plaisir d'enseigner dans la recherche d'attitudes à developper*. Summer, 111-112.

Engberg, Lila E. *Home Economics and Environmental Issues. A Discussion Paper*. Winter, 10-12.

Engberg, Lila E. *L'Économie familiale et les questions environnementals. Document de travail*. Winter, 13-16.

Forrester, Heide Adair. *Standards of Practice: An Issue to Consider*. Spring, 56-58.

Keino-Kagima, Leah. *Choices, Changes, Challenges: The Global Market and a Kenya Family*. Spring, 59-63.

King, Margaret C.A. *Brand Name, Store Image, and Country-of-Origin: The Effects on Consumers' Perception of Quality and Price*. Winter, 3-5.

Maina, Nyambura Susan and Murray, Eloise Comeau. *Factors That Affect Women as Mediators of Family Nutrition in Kenya*. Summer, 105-110.

Maina, Nyambura Susan. (See Murray, Eloise Comeau)

McGregor, Sue L.T. *Influencing Public Policy using the Issues Management Process*. Winter, 6-9.

Murray, Eloise Comeau and Maina, Nyambura Susan. *Transforming Women's Roles as Mediators of Family Nutrition: Education, Policy, and Research Options*. Fall, 139-143.

Murray, Eloise Comeau. (See Maina, Nyambura Susan)

Oakes, Jill and Pointe, Susan. *Social and Economic Factors Influencing MacKenzie Delta Inuvialuit Parkas*. Summer, 99-104.

Pelton, Mary. *Home Economics — From Home to College*. Fall, 153-157.

Pointe, Susan. (See Oakes, Jill)

Waudo, Judith. *Home Economics Education in Africa: Reflections and Prospects*. Fall, 150-152.

Wrobel, Kim and Capjack, Linda. *Canada's Fashion Industry — Can it be Environmentally Responsible?* Fall, 144-146.

Titles

Brand Name, Store Image, and Country-of-Origin: The Effects on Consumers' Perception of Quality and Price. King, Margaret C. A. Winter, 3-5.

Canada's Fashion Industry — Can it be Environmentally Responsible? Wrobel, Kim and Capjack, Linda. Fall, 144-146.

Choices, Changes, Challenges: The Global Market and a Kenya Family. Keino-Kagima, Leah. Spring, 59-63.

Découvir le plaisir d'enseigner dans la recherche d'attitudes a developper. Collard, Agathe Gagné. Summer, 111-112.

Découvrir le plaisir d'enseigner dans la recherche de l'efficacité et de l'excellence. Collard, Agathe Gagné. Winter, 17-19.

Discovering the Pleasure of Teaching While Striving for Effectiveness and Excellence. Collard, Agathe Gagné. Spring, 52-55.

Factors That Affect Women as Mediators of Family Nutrition in Kenya. Maina, Nyambura Susan and Murray, Eloise Comeau. Summer, 105-110.

Home Economics Education in Africa: Reflections and Prospects. Waudo, Judith. Fall, 150-152.

Home Economics and Environmental Issues. A Discussion Paper. Engberg, Lila E. Winter, 10-12.

Home Economics — From Home to College. Pelton, Mary. Fall, 153-157.

Influencing Public Policy Using the Issues Management Process. McGregor, Sue L.T. Winter, 6-9.

L'Économic familiale et les questions environnementales. Document de travail. Engberg, Lila E. Winter, 13-16.

New Insights into Teaching Apparel Design. Capjack, Linda. Summer, 96-98.

Social and Economic Factors Influencing MacKenzie Delta Inuvialuit Parkas. Oakes, Jill and Pointe, Susan. Summer, 99-104.

Standards of Practice: An Issue to Consider. Forrester, Heide Adair. Spring, 56-58.

Transforming Women's Roles as Mediators of Family Nutrition: Education, Policy, and Research Options. Murray, Eloise Comeau and Maina, Nyambura Susan. Fall, 139-143.

RESEARCH SECTION
SECTION DES RESEARCHES

Authors

Forster-Coull, Lisa and Sabry, Jean Henderson. *Nutrition Knowledge and Milk and Milk Product Consumption in a Group of Women*. Summer, 113-117.

Hodgson, Patricia, Spelten, Darlene, Slusar, Marie, LeBlanc, Eileen, Jamal, Neeshila, and Wilson, Michele. *Sensory and Objective Evaluation of Fat Reduced Vanilla Cookies Containing Polydextrose*. Fall, 158-165.

Jamal, Neeshila. (See Hodgson, Patricia)

LeBlanc, Eileen. (See Hodgson, Patricia)

Sabry, Jean Henderson. (See Forster-Coull, Lisa)

Slusar, Marie. (See Hodgson, Patricia)

Smith, Mary Gale. *A Conception of Global Education: A Home Economics Education Imperative.* Winter, 21-26.

Spelten, Darlene. (See Hodgson, Patricia)

Wilson, Michele. (See Hodgson, Patricia)

Titles

A Conception of Global Education: A Home Economics Education Imperative. Smith, Mary Gale. Winter, 21-26.

Editorial Panel. CHEJ Research Section. Winter, 26.

Nutrition Knowledge and Milk and Milk Product Consumption in a Group of Women. Forster-Coull, Lisa, and Sabry, Jean Henderson. Summer, 113-117.

Sensory and Objective Evaluation of Fat Reduced Vanilla Cookies Containing Polydextrose. Hodgson, Patricia, Spelten, Darlene, Slusar, Marie, LeBlanc, Eileen, Jamal, Neeshila, and Wilson, Michele. Fall, 158-165.

DEPARTMENTS
LES RUBRIQUES

1992-93 Undergraduate Enrolment Data. Spring, 85.

Arcus, Margaret. *IFHE... In Focus,* Spring, 79-82.

Arcus, Margaret. *Regards sur la FIEF.* Spring, 79-82.

Fetterman, Nelma. (See Reader Forum, Summer.)

From the Editors. Spring, 51.

Graduate Research in Canadian Universities. Spring, 83-84.

Humphries, Mary. (See Reader Forum, Spring.)

IFHE... In Focus. Summer, 130-132.

Kenway, Jane. *Home Economists Speak Out.* Spring, 86-91.

Lusby, Linda. *Home Economists Speak Out.* Winter, 44-46.

Lusby, Linda. *What do you say when consumers ask you about the new Child Tax Benefit?* Winter, 40-41.

Maynard, Marion. *On the Job: Profile of a home economist in Gerontology.* Winter, 42-43.

McFadyen, Linda. *What do you say when you are asked how Professional Home Economists can contribute to the field of housing?* Spring, 73-74.

McGregor, Sue. *Home Economists Speak Out.* Summer, 133-135.

McGregor, Sue. *On the Job: Profile of a home economist on an executive interchange.* Summer, 128-129.

Rebus, Shirley. *Home Economists Speak Out.* Fall, 177-178.

Regards sur la FIEF. Summer, 130-132.

Schneider, Dr. Rita. *On the Job: Profile of a home economist as a professional family ecologist.* Spring, 75-76.

White, Brenda. *New Developments.* Winter, 35-39; Spring, 69-72, Summer, 124-127; Fall, 171-174.

Abstracts of Current Literature Family and Consumer Studies

Authors

Angera, J.J. (See Cate, R.M.)

Blanton, Priscilla W. (See Robinson, Linda C.)

Carroll, Norman V. *Risks, benefits, and genetic substitution.* Winter, 31.

Cate, R.M., Long, E., Angera, J.J., and Draper, K.K. *Sexual intercourse and relationship development.* Fall, 168.

Chang, J. (See Duerson, M.C.)

Chen, X., Rubin, K.H., and Sun Y. *Social reputation and peer relationships in Chinese and Canadian children: A cross-cultural study.* Spring, 64.

Childers, T.L., and Rao, A.R. *The influence of familial and peer-based reference groups on consumer decisions.* Spring, 64.

Draper, K.K. (See Cate, R.M.)

Duerson M.C., Thomas, J.W., Chang, J., and Stevens, C.B. *Medical students' knowledge and misconceptions about aging: Responses to Palmore's facts on aging quizzes.* Spring, 64-65.

Grasmick, H.G. (See Mills, R.J.)

Grigel, Frank. (See Hobart, Charles)

Hobart, Charles, and Grigel, Frank. *Cohabitation among Canadian students at the end of the eighties.* Summer, 121.

Larson, J.H. (See Wilson, S.M.)

Lino, Mark. *Factors affecting borrower choice between fixed and adjustable rate mortages.* Summer, 121.

Long, E. (See Cate, R.M.)

Mederer, H.J. *Division of labor in two-earner homes: Task accomplishment versus household management as critical variables in perceptions about family work.* Fall, 167-168.

Mills, R.J., Grasmick, H.G., Morgan, C.S., and Wenk, D. *The effects of gender, family satisfaction, and economic strain on psychological well-being.* Spring, 64.

Morgan, C.S. (See Mills, R.J.)

Moss, Barry F., and Schwebel, Andrew I. *Defining intimacy in romantic relationships.* Summer, 121.

Oropesa, R.S. *Female labor force participation and time-saving household technology: A case study of the microwave from 1978 to 1989.* Fall, 168.

Rao, A.R. (See Childers, T.L.)

Robinson, Linda C., and Blanton, Priscilla W. *Maritial strengths in enduring marriages.* Summer, 121-122.

Rubin, K.H. (See Chen, X.)

Schoen, Robert. *First unions and the stability of first marriages.* Winter, 30.

Schwebel, Andrew I. (See Moss, Barry F.)

Stevens, C.B. (See Duerson, M.C.)

Stone, K.L. (See Wilson, S.M.)

Sun, Y. (See Chen, X.)

Thomas, J.W. (See Duerson, M.C.)

Warner, Rebecca L. *Does the sex of your children matter? Support for feminism among women and men in the United States and Canada.* Winter, 30.

Wenk, D. (See Mills, R.J.)

Willie, Diane E. *Maternal employment: Impact on maternal behavior.* Winter, 30-31.

Wilson, S.M., Larson, J.H., and Stone, K.L. *Stress among job insecure workers and their spouses.* Fall, 168.

Wolfgang, Alan P. (See Carroll, Norman V.)

Foods and Nutrition

Authors

Anderson, J.W., Riddell-Mason, S., Gustafson, N.J., Smith, S.F., and MacKey, M. *Cholesterol — lowering effects of psyllium-enriched cereal as an adjunct to a prudent diet in the treatment of mild to moderate hypercholesterolemia.* Spring, 66.

Bajema, C.J. (See Must, A.)

Barker, D.J.P., Gluckman, P.D., Godfrey, K.M., Harding, J.E., Owens, J.A., and Robinson, J.S. *Fetal nutrition and cardiovascular disease in adult life.* Fall, 170.

Barr, S.I. (See Pare, S.)

Barrett-Connor, E.L. (See Edelstein, S.L.)

Beggs, L., Hendricks, S., Schwartz, N.B., and Biro, K. *Tracking nutrition trends: Canadians' attitudes, knowledge and behaviours regarding fat, fibre and cholesterol.* Fall, 168-169.

Biro, K. (See Beggs, L.)

Borum, P.R. (See Cannella, P.C.)

Bowser, E.K. (See Cannella, P.C.)

Brannon, E. (See Martinsen, C.)

Cannella, P.C., Bowser, E.K., Guyer, L.K., and Borum, P.R. *Feeding practices and nutrition recommendations for infants with cystic fibrosis.* Fall, 169-170.

Chen, V. (See de Stefani, E.)

Cohn, B.A. (See Edelstein, S.L.)

Coleman, P. (See Parker, S.L.)

Colditz, G.A. (See Willett, W.C.)

Correa, P. (See de Stefani, E.)

Dallal, G.E. (See Must, A.)

de Stefani, E., Correa, P., Fierro, L., Fontham, E.T.H., Chen, V., and Zavala, D. *The effect of alcohol on the risk of lung cancer in Uruguay.* Fall, 169.

Dewey, K.G., Heinig, M.J., Nimmsen, L.A., Peerson, J.M., and Lonnerdal, B. *Growth of breast-fed and formula-fed infants from 0 to 18 months: The DARLING Study.* Spring, 66.

Dietz, W.H. (See Must, A.)

Edelstein, S.L., Barrett-Connor, E.L., Wingard, D.L., and Cohn, B.A. *Increased meal frequency associated with decreased cholesterol concentrations; Rancho Bernardo, CA, 1984-1987.* Winter, 31-32.

Evens, S.M. (See Silverman, K.)

Fierro, L. (See de Stefani, E.)

Fontham, E.T.H. (See de Stefani, E.)

Gluckman, P.D. (See Barker, D.J.P.)

Godfrey, K.M. (See Barker, D.J.P.)

Green, C.G. *Using consumer survey data to develop marketing strategies in college/university food services.* Spring, 65.

Griffiths, R.R. (See Silverman, K.)

Gustafson, N.J. (See Anderson, J.W.)

Guyer, L.K. (See Cannella, P.C.)

Harding, J.E. (See Barker, D.J.P.)

Hawthorne, V.M. (See Isles, C.G.)

Heinig, M.J. (See Dewey, K.G.)

Hendricks, S. (See Beggs, L.)

Hennekens, C.H. (See Willett, W.C.)

Hole, D.J. (See Isles, C.G.)

Isles, C.G., Hole, D.J., Hawthorne, V.M., and Lever, A.F. *Relation between coronary risk and coronary mortality in women of the Renfrew and Paisley survey: Comparison with men.* Winter, 32.

Jacques, P.F. (See Must, A.)

Jones, K.H., and Nagel, K.L. *Eating disorders: A theoretical review.* Summer, 122-123.

Kerner, J.A. (See Quan, R.)

Kristal, A.R. (See Shattuck, A.L.)

Krondl, M. (See Parker, S.L.)

Lauby, B. (See Martinsen, C.)

Lever, A.F. (See Isles, C.G.)

Lewiston, N.J. (See Quan, R.)

Lonnerdal, B. (See Dewey, K.G.)

MacKey, M. (See Anderson, J.W.)

Manson, J.E. (See Willett, W.C.)

Martinsen, C., Lauby, B., Nevissi, A., and Brannon, E. *The influence of crude oil and dispersant on the sensory characteristics of steelhead (Oncorhynchus mykiss) in marine waters.* Spring, 65-66.

Must, A., Jacques, P.F., Dallal, G.E., Bajema, C.J., and Dietz, W.H. *Long-term morbidity and mortality of overweight adolescents. A followup of Harvard Growth Study of 1922 to 1935.* Summer, 123.

Nagel, K.L. (See Jones, K.H.)

Nevissi, A. (See Martinsen, C.)

Nimmsen, L.A. (See Dewey, K.G.)

Owens, J.A. (See Barker, D.J.P.)

Pare, S., Barr, S.I., and Ross, S.E. *Effect of daytime protein restriction on nutrient intakes of free-living Parkinson's disease patients.* Winter, 31.

Parker, S.L., Krondl, M., and Coleman, P. *Foods perceived by adults as causing adverse reactions.* Summer, 122.

Peerson, J.M. (See Dewey, K.G.)

Quan, R., Yang, C., Rubinstein, S., Lewiston, N.J., Sunshine, P., Stevenson, S.K., and Kerner, J. A. *Effects of microwave radiation on anti-infective factors in human milk.* Summer, 123.

Riddell-Mason, S. (See Anderson, J.W.)

Robinson, J.S. (See Barker, D.J.P.)

Rosner, B.A. (See Willett, W.C.)

Ross, E.V. (See Pare, S.)

Roufs, J.B. *Review of L-tryptophan and eosinophilia — myalgia syndrome.* Winter, 32-33.

Rubinstein, S. (See Quan, R.)

Sampson, L.A. (See Willett, W.C.)

Schwartz, N.B. (See Beggs, L.)

Shattuck, A.L., White, E., and Kristal, A.R. *How women's adopted low-fat diets affect their husbands.* Spring, 66-67.

Silverman, K., Evens, S.M., Strain, E.C., and Griffiths, R.R. *Withdrawal syndrome after the double-blind cessation of caffeine consumption.* Summer, 122.

Smith, S.F. (See Anderson, J.W.)

Speizer, F.E. (See Willett, W.C.)

Stampfer, M.J. (See Willett, W.C.)

Stevenson, S.K. (See Quan, R.)

Strain, E.C. (See Silverman, K.)

Sunshine, P. (See Quan, R.)

Victora, C.G. *The association between wasting and stunting. An international perspective.* Winter, 32.

White, E. (See Shattuck, A.L.)

Willett, W.C., Stampfer, M.J., Manson, J.E., Colditz, G.A., Speizer, F.E., Rosner, B.A., Sampson, L.A., and Hennekens, C.H. *Intake of trans fatty acids and risk of coronary heart disease among women.* Fall, 169.

Wingard, D.L. (See Edelstein, S.L.)

Yang, C. (See Quan, R.)

Zavala, D. (See de Stefani, E.)

Clothing and Textiles

Authors

Abdullah, A.B.M. *Natural shield to hand.* Spring, 67.

Burns, L.D. (See Lee, M.)

Chen, Y. See (Collier, B.J.)

Collier, B.J., Chen, Y., and Collier, J.R. *A dynamic method for measuring formaldehyde release from durable press fabrics.* Spring, 67-68.

Collier, J.R. (See Collier, B.J.)

Crews, P.C. (See Rich, W.M.)

Davenshary, R. *Work in apparel related industries.* Fall, 166.

Epps, H.H., and Song, M.K. *Thermal transmittance and air permeability of plain weave fabrics.* Summer, 120.

Fanslow, A.M. (See Popelka, C.A.)

Griffin, M.L., and O'Neal, G.S. *Critical characteritics of fabric quality.* Summer, 120.

Grover, G. (See Sultan, M.)

Hall, D.M., Walker, R.P., and Mora, E.C. *Scanning electron microscopy for problem solving in textiles.* Winter, 34.

Johnson, K.K.P., and Workman. J.E. *Clothing and attributions concerning sexual harassment.* Summer, 120.

Koch, K., and MacGillivray, M. *Information — based data and maternity wear.* Winter, 33.

Lee, M., and Burns, L.D. *Self-consciousness and clothing purchase criteria of Korean and United States college women.* Fall, 166.

Littrell, M.A. (See Popelka, C.A.)

Lowe, E. *Quantitative analysis of fashion change: A critical review.* Fall, 167.

Mann, J.A. *Menace to microbes.* Spring, 67.

MacGillivray, M. (See Koch, K.)

Moore, C.L. *Factors that affect undesirable garment drape.* Spring, 67.

Mora, E.C. (See Hall, D.M.)

O'Neal, G.S. (See Griffin, M.L.)

Popelka, C.A., Fanslow, A.M., and Littrell, M.A. *Profiles of success: Mexican textile handcraft entrepreneurs and their business.* Winter, 33-34.

Rich, W.M., and Crews, P.C. *Influence of shade depth on the effectiveness of selected ultraviolet absorbers in reducing fading.* Fall, 166-167.

Schiller, G. *Pure air production.* Summer, 120-121.

Song, M.K. (See Epps, H.H.)

Spivak, S. (See Sultan, M.)

Sultan, M., Grover, G., and Spivak, S. *Measuring fabric hand.* Winter, 34.

Walker, R.P. (See Hall, D.M.)

Workman, J.E. (See Johnson, K.K.P.)

Book Reviews

Bowers, Jane. *Food Theory and Applications.* Winter, 28. Reviewed by Mary Losier — Roderick.

Bloomfield, Michael and Ward-Whate, Louise. *Workplace Guide: Practical Action for the Environment.* Spring, 77. Reviewed by James Frey.

Brown, Gail. *Gail Brown's All New Instant Interiors.* Spring, 77. Reviewed by Laura-Marie Doenz.

Brown, Patty. *Ready-to-Wear Apparel Analysis.* Winter, 28. Reviewed by Donna Veldhoen.

Copeland, Anne P. and White, Kathleen, M. *Studying Families.* Winter, 27-28. Reviewed by Karen Webster.

Drummond, Karen Eich, Vastano, Joseph F., and Vastano, Josephine C. *Cook's Healthy Handbook — Good Nutrition and Safety in your Kitchen.* Fall, 176. Reviewed by Linda West.

Ferguson. Carol; and Fraser, Margaret. *A Century of Canadian Home Cooking 1900 through the '90s.* Summer, 119. Reviewed by Linda West.

Graham, Karen M. *Food Irradiation. A Canadian Folly.* Fall, 176. Reviewed by Kathleen E. Beaulieu.

Humphries, Mary. *Fabric Handbook 1 — Glossary and Fabric Handbook 2 - Reference.* Winter, 28-29. Reviewed by Nelma Fetterman.

Katz, Patricia. *Getting It Together – How To Organize your Work, Your Home and Yourself.* Fall, 175. Reviewed by Leah Boulet.

Kumar, Ranjit and Murek, Barbara. *On Common Ground Managing Human - Planet Relationships.* Fall, 175-176. Reviewed by Sharon Channer.

Largen, Velda L. and Bence, Deborah, L. *Guide to Good Food.* Fall., Reviewed by Bea Slavich.

Lewis, Susan, Izraeli, Dafna and Hootsmans, Helen. *Dual-Earner Families: International Perspectives.* Summer, 119. Reviewed by Lana Burnstad.

Norman, Jill. *The Complete Book of Spices.* Spring, 78. Reviewed by Dianne Noakes.

Peterat, Linda and Vaines, Eleanor. *1992 Yearbook: Lives and Plans: Signs for Transformng Practice.* Spring, 78. Reviewed by Mary-Leah DeZwart.

Powers, Jane Bernard. *The "Girl Question" in Education: Vocational Education for Young Women in the Progressive Era.* Spring 77-78. Reviewed by Verna Lefebvre.

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Advertising rate card. Winter, 47; Spring, 92; Summer, 136.

Awards 1993. Fall, 184-187.

Bourses 1993. Fall, 184-187.

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CHEA Conference '93 (advertisement). Winter, BC; Spring, BC, Summer, BC.

CHEJ. Demande d'articles. Winter, 39; Spring, 68; Summer, 104; Fall, 143.

CHEJ Guide for authors, Fall.

CHEJ Theme announcement. Winter, 43; Spring, 63; Summer, 98.

CHEJ Théme Annonce. Winter, 20; Spring, 76; Summer, 110.

CHEJ Submission deadlines. Winter, 39; Spring, 68; Summer, 104; Fall, 143.

Code of Ethics. Winter, IBC, Spring, IFC; Summer, IFC; Fall, IFC.

Code de déontologie. Winter, IBC; Spring, IFC; Summer, IFC; Fall, IFC.

Upcoming conferences, (notice). Spring, IFC; Fall, IFC.

Canadian Home Economics Association
Association canadienne d'économie familiale

1993 CHEA AWARD WINNERS

Mary A. Clarke Memorial Scholarship
Bourse commémorative Mary A. Clarke

Elizabeth Richards
Alberta

Silver Jubilee Scholarship
Bourse du vingt-cinquième anniversaire

Jennifer Wing
British Columbia

CHEA Honour Award
ACEF Prix d'honneur

J. Estelle Reddin,
Prince Edward Island

Ruth Binnie Scholarship
Bourse Ruth Binnie
(part-time/temps partiel)

Heidi Adair Forrester, Manitoba
Marion Vigneau, Nova Scotia

Canadian Soft Drink Association
"Distinguished Visiting Lecturer Award"
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FAMILIES IN MOTION CHEA 93

CHEA GLOBAL AWARENESS WRITING AWARD

The Canadian Home Economics Association offers the Global Awareness Writing Award to encourage study of global development issues within Home Economics or a related program and to promote professional leadership for international development education.

ELIGIBILITY:

Open to undergraduate students from faculties of Home Economics, Education, Family and Consumer Studies, Human Ecology, Foods and Nutrition and related programs. Eligible are original theme or position papers of a maximum of 2000 words on the theme **Families and Sustainable Development: A Global Issue for Home Economists**. The paper may be an adaptation of a seminar report or term paper.

AWARD:

$50 plus travel, accommodation and registration costs to attend CHEA's International Development Pre-conference Workshop in Quebec City, July, 1994. CHEA may, at its discretion, publish all or part of the winning paper.

APPLICATION:

Entries must be received no later than **March 7, 1994**. Papers may be submitted in either English or French. Complete regulations may be obtained from the office of the Dean or Director. Direct all submissions and correspondence to: Development Education Officer, CHEA, 901-151 Slater St., Ottawa, ON K1P 5H3. Telephone: (613) 238-8817, Fax: (613) 238-1677.

PRIX DU MEILLEUR ÉCRIT DE SENSIBILISATION AUX QUESTIONS INTERNATIONALES

L'Association canadienne d'économie familiale offre le Prix du meilleur écrit de sensibilisation aux questions internationales afin d'encourager l'étude de questions de développement international au sein du Programme d'économie familiale ou d'un programme assimilé et de promouvoir le rôle de leadership que peut jouer la profession en éducation au développement international.

ADMISSIBILITÉ :

Ce concours est ouvert à tous les étudiants et les étudiantes de 1er cycle inscrits dans des facultés ou programmes d'économie familiale, éducation, études de la famille et sur la consommation, écologie humaine, aliments et nutrition, et autres programmes assimilés. Seront admissibles tous les exposés thématiques ou de position originaux, de 2000 mots ou moins, qui traiteront du thème général suivant : **Les familles et le développement durable : une question internationale pour les spécialistes en économie familiale**. Le document peut être une version adaptée d'un rapport de séminaire ou d'un travail de semestre.

PRIX :

L'ACEF remettra, à la personne gagnante, la somme de 50 $ et payera tous ses frais de déplacement, d'hébergement et d'inscription pour lui permettre d'assister à l'atelier sur le développement international qui précédera le congrès de l'ACEF, à Québec, en juillet 1994. L'ACEF se réserve le droit de publier le texte gagnant, en tout ou en partie.

INSCRIPTION :

L'ACEF doit avoir reçu toutes les soumissions au plus tard le 7 mars 1994. Les textes peuvent être soumis soit en anglais au en français. Vous pouvez obtenir les règlements complets au bureau du doyen ou directeur. Toutes les soumissions et la correspondance seront acheminées à l'adresse suivante : Agente d'éducation au développement, ACEF, 151, rue Slater, Bureau 901, Ottawa (Ontario) K1P 5H3. Téléphone : (613) 238-8817 Télécopieur : (613) 238-1677.

CHEA/ACHES
GLOBAL AWARENESS COMMUNICATIONS AWARD

The Canadian Home Economics Association and Association of Canadian Home Economics Students offer the Global Awareness Communications Award to encourage study of global development issues within Home Economics or a related program and to promote professional leadership for international development education.

ELIGIBILITY:

Open to undergraduate students from faculties of Home Economics, Education, Family and Consumer Studies, Human Ecology, Foods and Nutrition and related programs. Eligible are original print materials and written descriptions or prototypes of original audio-visual materials whose primary purpose is to educate home economics students about a global issue which affects quality of life in the Third World and Canada. This may include, but is not limited to, news articles or editorials (1000 words); pamphlets, fact sheets or information papers (4 pages maximum), script for a slide show, skit or speech, learning activity or lesson plan (45 minute maximum), description of an information booth/display (6 ft x 6 ft space). It should increase awareness and understanding of the problem at issue, its structural causes, global interconnections and solutions and lead the audience to action. Entrants must be willing to give a short presentation on the topic at the ACHES Conference.

AWARD:

$50 plus travel, accommodation and registration costs to attend and give a presentation at the ACHES Conference in Toronto, January 12-14, 1994. CHEA may, at the discretion of the International Development. Committee, publish or use the winning submission in its development education program.

CRITERIA:

Judges will evaluate the submissions according to the following criteria:
- significance of the topic
- contribution to increasing understanding and action on a global development issue affecting families
- clarity and accuracy of information and soundness of analysis and solutions
- suitability for presentation to home economics students
- quality of presentation (readability, composition, form, style)

APPLICATION:

Entries must be received no later than **December 1, 1993**. The entry must include an identification page with the name, address and telephone numbers where the student can be reached during the month of December, name of the university program and the student's major and year. Direct all submissions and correspondence to: Development Education Officer, CHEA, 901-151 Slater St., Ottawa, ON K1P 5H3. Telephone: (613) 238-8817, Fax: (613) 238-1677.

SCHOLARSHIPS FOR GRADUATE STUDY

Eligibility

Applicant must be:
- Canadian citizen or landed immigrant
- member of CHEA
- graduate in home economics, human ecology, or consumer studies (Additional requirements are noted in descriptions.)
- proceeding to a higher academic degree

Individuals may apply for a maximum of 2 scholarships, and are reminded to read the accompanying descriptions carefully to determine which are best matched to the applicant.

Previous CHEA scholarship winners are eligible to reapply for awards, provided they continue to be enrolled in graduate study. Unsuccessful applicants may reapply for the same or different awards in future years. Files are not kept, so a new application must be submitted each time.

Awarding of Scholarships

Applications which satisfy the award criteria are evaluated on the basis of personal qualities, past or potential contribution to the profession of home economics, and scholarship.

Applicants will be notified of the decision of the awards committee by April 30. Funds are released to winners once it has been confirmed that they are registered in their respective programs.

Application Process

Completed application must be postmarked no later than January 15.

Application forms are available through faculty offices, or from CHEA.

Canadian Home Economics Association
Association canadienne d'économie familiale

901, 151 Slater Street, Ottawa, Ontario K1P 5H3
Tel: (613) 238-8817 Fax: (613) 238-1677

doctoral study $4000	**Fiftieth Anniversary Scholarship** Commemorates the 50th anniversary of CHEA. Applicant must have been a CHEA member for at least 2 years.
graduate study $4000	**Silver Jubilee Scholarship** Commemorates the 25th anniversary of CHEA.
graduate study $4000	**Mary A. Clarke Memorial Scholarship** Established as a tribute to Mary Clarke, a valued member of CHEA, and 1952-54 president.
graduate study (foods) $1000	**Nestlé Canada Inc. Scholarship** Selection based on previously-described general criteria, and on intention of the applicant to pursue a career in the food industry. Presented by Nestlé Canada Inc.
graduate study $1000	**Robin Hood Multifoods Scholarship** Preference is given to an individual planning a career in business, consumer service (foods), or foodservice management. Presented by Robin Hood Multifoods Inc.
Masters of Education $5000	**Ruth Binnie Scholarship** (two awards) For a graduate in home economics or home economics education who holds a professional teaching certificate, and has a high commitment to the teaching profession and home economics education. First consideration is given to full-time students; awards to part-time students will be prorated. In addition to the general criteria for awards, consideration will be given to contribution toward home economics education in junior or senior high school, and potential in the education field. Established through the generosity of the late Ruth Binnie, Halifax, to provide quality home economics education in Canada.

BOURSES D'ÉTUDES SUPÉRIEURES

Admissibilité

Conditions à remplir:
- être citoyenne canadienne ou immigrante reçue
- être membre de l'ACEF
- être diplômée d'économie familiale, d'écologie humaine ou d'études des consommateurs (voir les autres conditions dans les descriptions)
- poursuivre des études de niveau supérieur

Les candidates peuvent s'inscrire à 2 bourses au maximum. Elles doivent lire attentivement les descriptions ci-contre pour choisir les bourses correspondant le mieux à leur cas.

Les personnes qui ont déjà reçu une bourse d'études de l'ACEF peuvent poser à nouveau leur candidature si elles sont encore inscrites à des études supérieures. Les candidates qui n'ont pas été sélectionnées peuvent postuler à nouveau la même bourse, ou une autre, les années suivantes. Nous ne gardons pas les dossiers. Il faut chaque fois faire une nouvelle demande.

Attribution des bourses

Les demandes qui répondent aux critères sont évaluées en fonction des qualités personnelles de la candidate, de son apport passé ou possible à la profession de l'économie familiale et de ses notes.

Les intéressées seront informées au plus tard le 30 avril de la décision du Comité des prix et bourses. Les personnes sélectionnées recevront l'argent après confirmation de leur inscription dans leurs programmes respectifs.

Modalités de demande

Le formulaire de demande dûment rempli doit être envoyé au plus tard le 15 janvier, le cachet de la poste faisant foi.

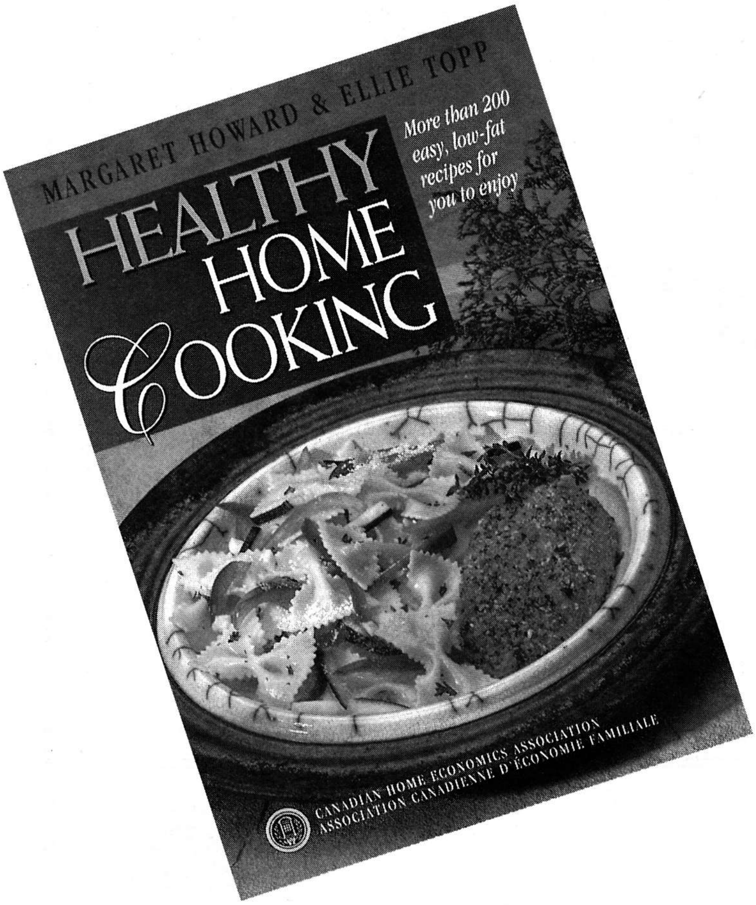
Les formulaires sont disponibles dans les facultés ou à l'ACEF.

Canadian Home Economics Association
Association canadienne d'économie familiale

151, rue Slater, bureau 901, Ottawa (Ontario) K1P 5H3
Téléphone: (613) 238-8817 Télécopieur: (613) 238-1677

Doctorat 4000 $	**Bourse du Cinquantenaire** Célébration du Cinquantenaire de l'ACEF. Les candidates doivent avoir été membres de l'ACEF au moins deux ans.
2ᵉ et 3ᵉ cycles 4000 $	**Bourse du Vingt-cinquième anniversaire** Célébration du Vingt-cinquième anniversaire de l'ACEF.
2ᵉ et 3ᵉ cycles 4000 $	**Bourse commémorative Mary A. Clarke** Offerte en l'honneur de Mary Clarke, membre éminent de l'ACEF et présidente de 1952 à 2954.
2ᵉ et 3ᵉ cycles (alimentation) généraux déjà indiqués 1000 $	**Bourse de Nestlé Canada Inc.** La sélection est faite d'après les critères et l'intention de la candidate de faire carrière dans l'industrie de l'alimentation. Décernée par Nestlé Canada Inc.
2ᵉ et 3ᵉ cycles 1000 $	Bourse **Robin Hood Multifoods** La préférence ira à une personne qui veut faire carrière dans les affaires, le service aux consommateurs (alimentation) ou la gestion de services alimentaires. Décernée par Robin Hood Multifoods Inc.
Maîtrise en Éducation 5000 $	Bourse **Ruth Binnie** (2 bourses) Destinée à une diplômée en économie familiale ou éducation à l'économie familiale, détentrice d'un certificat d'enseignement professionnel et très intéressée par l'enseignement de la profession et l'éducation à l'économie familiale. La préférence ira d'abord aux étudiantes à plein temps. Les bourses offertes aux étudiantes à temps partiel seront proportionnelles. En plus des critères généraux indiqués pour les bourses, le Comité tiendra compte des contributions de la candidate à l'enseignement de l'économie familiale dans les écoles secondaires, et de son apport possible dans le domaine de l'éducation. La bourse est décernée grâce à la générosité de feu Ruth Binnie (Halifax) pour une éducation de qualité en économie familiale au Canada.

JUST RELEASED!!



Co-authored by CHEA members Margaret Howard and Ellie Topp, **"Healthy Home Cooking"** is the first book to incorporate Canada's Food Guide to Healthy Eating.

Published jointly by CHEA and Macmillan Canada, your purchase will provide revenue for all Canadian home economics associations.

Contact CHEA National Office or your provincial/branch association to order a copy.

The cost is $19.95 + $1.40 GST = $21.35
Postage & handling (up to 10 copies) = $4.00

(For CHEA orders make cheque payable to CHEA.)

CONTENTS

Preface

Introduction

Importance of Healthy Cooking
Variety, Balance, Moderation
What is Canada's Food Guide to Healthy Eating?
Using Canada's Food Guide to Healthy Eating
Healthy Cooking
- Low-Fat Cooking Methods
- Low-Fat Cooking Techniques
- Recipe Nutrient Analysis

RECIPES

Morning Starts	1
Appetizers	19
Soups	35
Salads	45
Vegetables	59
Rice, Pasta and Grains	73
Meats and Poultry	85
Fish	107
Meat Alternatives	119
Desserts	137
Canadiana	157
Fun for Kids	169
List of Resources	177
Bibliography	178
Index	179

Canadian Home Economics Association
Association canadienne d'économie familiale

Congrès 1994 de l'ACEF à Québec.

Thème: La famille, coeur de la société.

Venez découvrir le berceau de la civilisation française en Amérique: Québec, joyau du patrimoine mondial de l'UNESCO depuis 1985.

C'est un rendez-vous à venir se ressourcer et se regénérer au Congrès de l'ACEF du 3 au 6 juillet 1994 à l'Hotel Loews Le Concorde.

CHEA Conference 1994 in Quebec.

Theme: The Family, heart of Society.

Come and discover the birthplace of French civilisation in North America, Quebec City, which since 1985 has joined its rightful place on the prestigious UNESCO world heritage list.

It's a date, to regenerate, to keep abreast, to meet and to enjoy, from the 3rd to the 6th of July at the Loews Le Concorde Hotel.

1994 International Year of the Family
Année internationale de la famille